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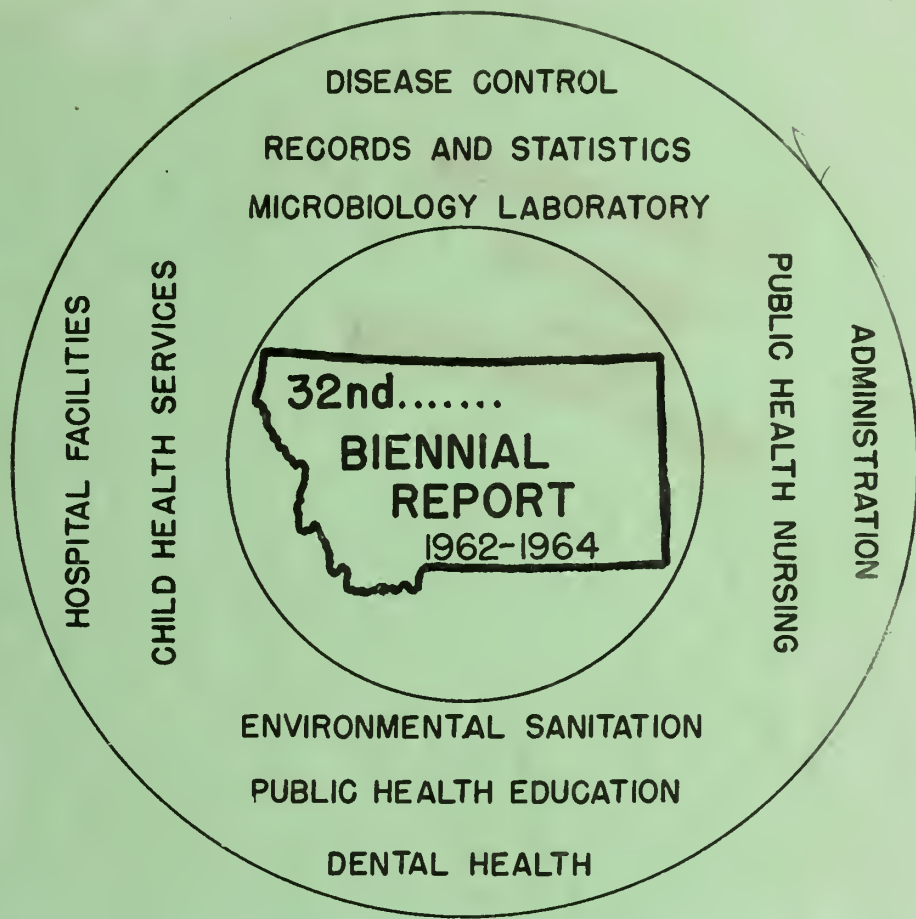
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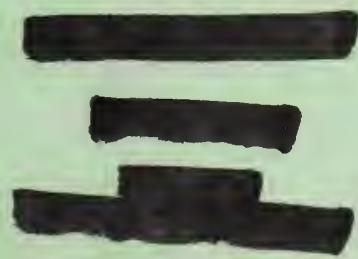
STATE DOCUMENTS



MONTANA

STATE BOARD

OF HEALTH





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PHOTOGRAPHERS

Photographs used in this publication were taken by SBH staff unless otherwise stated. Those taken at the Center for Cerebral Palsy and Handicapped Children were taken by Mrs. Vera Stenjhem, Public Health Nurse, and Everett E. Peery, Ed.D., Coordinator; Dental Health pictures by John R. Snyder, D.D.S.; Crippled Children's Services, Miss Frances Seyler; some of the Mental Health pictures by Mrs. Mildred Hoem, Secretary, Butte-Anaconda Field Office; and with few exceptions, all others by the Public Health Educators: Mrs. Maxine Homer, Mrs. Mabel Rickett, Miss Cornelia Robinson and Robert L. Solomon.







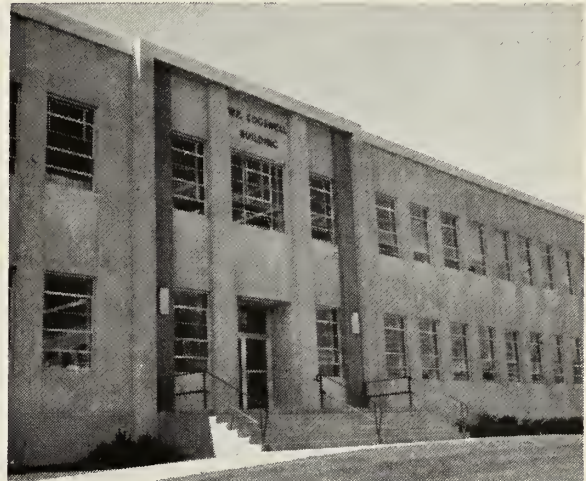
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32ND BIENNIAL REPORT OF THE MONTANA STATE BOARD OF HEALTH

The State Laboratory Building in Helena was re-named the "W. F. Cogswell Building," honoring W. F. Cogswell, M.D., who for 34 years was the executive officer of the Montana State Board of Health.



The renaming of the building in which many of the Board's offices are located is the result of legislative action introduced as a Joint Resolution by William F. Cashmore, M.D., Senator from Lewis and Clark County in 1963.

At the dedication of the Building, Dr. Cogswell's three sons presented the State with a portrait of their father.



Wava L. Dixon
1906-1964

This 32nd Biennial Report of the Montana State Board of Health is dedicated to the memory of Miss Wava L. Dixon, who for 27 years served the citizens of Montana in public health nursing positions. She had gone through the ranks, beginning as a staff nurse, then to the position of local public health nursing supervisor, to State Board of Health Nursing Consultant position and for the last 12 years served as the Director of Public Health Nursing on the State Board of Health staff.

Miss Dixon died on January 5, 1964, at her home in Helena after an illness of several months. In honoring her, her associates pay tribute to her zest and enthusiasm in her long-time service in public health. She was highly revered in public health not only in Montana but in National Public Health circles as well.

The Montana Nurses feel that perhaps they will miss her leadership more than any other group. Mrs. Virginia Kenyon, her successor as director of the State Board of Health Division of Public Health Nursing, speaking for them says, "She was serving her second term as president of the Montana Nurses Association at the time of her death. In this capacity she worked tirelessly for the acquisition of full professional status for nurses with the opportunity to exercise self-determination, judgment and responsibility inherent in professionalism.

"Her interest in nursing education contributed toward the accreditation of the public health nursing program at Montana State College in Bozeman. Not until this program was accredited in 1960 could nurses obtain academic preparation in public health nursing within the State.

"Miss Dixon was a truly dedicated woman whose passing leaves a void in nursing leadership at a time when her skills are sorely needed. To her, the improvement of nursing care to those who need it was more than a vocation—it was a way of life!"

Tributes are paid to others on the State Board of Health staff who died during the biennium, after contributing service to public health progress in Montana:

Harold Barnes: Laboratory technician, died in July 1964, after 21 years of employment in the Microbiology Laboratory.

Carl Hultman, M.D., M.P.H. was Acting Director of Child Health Services at the time of his death in February, 1964. Board Members who died during the biennium were:

Otto Klein, M.D., Helena, member of the Board, died in February, 1964.

B. L. Pampel, M.D., Livingston, died in September, 1963. He had been a Board member from 1919 to 1938.

Others:

J. X. Newman, Ph.D., Butte Pathologist and former director of the SBH Laboratory, died in April, 1964.

Mrs. Jean Kennedy, Capitol Switch Board Operator and at one time SBH Switch Board Operator, died in March, 1964.

Local Public Health Staff Members who have resigned, after 10 or more years of service, during the biennium are:

Carl Hammer, M.D., M.P.H., Gallatin City-County Health Officer, after 12 years in this position which followed several years as director of the Montana State College Health Service Program.

Mrs. Dorothy Dittmaier, Ravalli County, after 10 years of service in Public Health Nursing.

STATE WATER POLLUTION COUNCIL MEMBERS*

Winton Wedemeyer, Fortine, Chairman
Everett Darlinton, Helena, Vice-Chairman
Appointed 3/63

Frank Dunkel, Helena
Appointed 10/63

Claude Eyer, Glendive
Appointed 7/64
John Hazen, Butte
R. D. Flightner, Darby

John S. Anderson, M.D., Helena
C. W. Brinck, Helena, Secretary

Others who were members at the beginning of the biennium were:

Fred Palmer, Forsyth, Chairman, Resigned 6/64

Walter Everin, Helena, Vice-Chairman, Resigned 9/64

Fred Buck, Helena, Retired 3/64

ADVISORY HOSPITAL COUNCIL MEMBERS*

John S. Anderson, M.D., Helena
Chairman Ex-officio

W. J. Fouse, Helena, Ex-officio

Mrs. Fern Anderson, Fort Benton

Mrs. Ann B. Brockway Sweeney, Libby

Msgr. James J. Donovan, Billings

Gerald A. Diettert, M.D., Missoula

Bert Erickson, Helena

David Gregory, M.D., Glasgow

Robert Howe, Billings

R. H. Leeds, M.D., Chinook

W. Boyce Clark, Miles City

Appointed 7/15/64 to fill the unexpired term of Al Hansen, Baker, deceased.

BOARD OF CENTER FOR CEREBRAL PALSY AND HANDICAPPED CHILDREN

M. C. Gallagher, Billings, Superintendent of Schools

Herbert L. Steele, Ed.D., Billings, President, Eastern Montana College

John S. Anderson, M.D., M.P.H., Helena, Executive Officer of the State Board of Health

OTHER COMMITTEES ADVISORY TO THE SBH

Montana Medical Association

Committees on: Cancer, Fracture and Orthopedic, Heart and Rh. Fever, Maternal and Child Welfare, Public Health, Tuberculosis, Emergency Medical Service

Montana State Dental Association

Dental Advisory Committee

Joint Advisory Council on Health of School-aged Child*

Civil Defense Health Services

Professional Advisory Committee

Venereal Disease Advisory Committee

*Created by Legislative Action. Council appointments are made by the Governor
**With the State Department of Public Instruction



The Montana State Board of Health is Pictured Above at One of its Regular Bi-Monthly Meetings. (From Left to Right) Mrs. Alvina Welliver, Recorder; Paul H. Bowden, D.D.S., Butte; Mrs. O. H. Mann, Missoula; S. C. Pratt, M.D., Miles City; R. J. Losleben, Malta; John S. Anderson, M.D., M.P.H., Helena, Secretary; George H. Gould, M.D., Kalispell; Robert K. Knapp, M.D., Wolf Point; Mrs. Richard G. Ellis, Great Falls.

THE BOARD

"The Board shall consist of seven (7) members, to be appointed by the governor, three of whom shall have a degree of doctor of medicine, one of whom shall have the degree of doctor of dental surgery and three of whom shall be lay persons, each of whom has demonstrated intelligent and active interest in the field of public health in Montana. For the purpose of this act a 'lay person' is hereby defined as any person who does not hold the degree of doctor of dental surgery or doctor of medicine." (1)

During the biennium the following have held membership on the State Board of Health, with the membership as of June 30, 1964 starred (*).

	Appointed	Term Ends
*Bowden, Paul H., D.D.S., Butte.....	7/62 ⁽²⁾	6/69
Klein, Otto G., M.D. ⁽³⁾ , Helena.....	2/61	
*Gould, George M., M.D., Kalispell.....	6/64	6/66
*Knapp, R. D., M.D., Wolf Point.....	7/64 ⁽²⁾	6/71
*Losleben, R. J., Malta, Vice-President 7/57 to 9/61; President 9/61 to Present.....	7/60 ⁽²⁾	6/67
Nauditt, Mrs. John L. ⁽⁴⁾ , Superior.....	7/61	
*Ellis, Mrs. Richard, Great Falls.....	12/63	6/68
*Mann, Mrs. O. H., Missoula.....	2/61	6/65
*Pratt, S. C., M.D., Miles City, Vice-President 9/61 to Present.....	1/63 ⁽²⁾	6/70
*Anderson, John S., M.D., Secretary.....	12/61 ⁽⁵⁾	

(1) R. C. M. 1947

(2) Reappointed

(3) Deceased 2/64

(4) Resigned 10/63

(5) Elected by the Board

STATE BOARD OF HEALTH STAFF ORGANIZATION

ADMINISTRATION

John S. Anderson, M.D., M.P.H.
Executive Officer

Mary E. Soules, M.D., M.P.H.
Deputy Executive Officer

Robert A. James
Administrative Officer

Tom Graham, Coordinator
Emergency Health Planning

(Mrs.) Edna Kuhn, Nursing Supervisor Butte-
Anaconda Mental Health Field Office

CHILD HEALTH

John S. Anderson, M.D., M.P.H.
Acting Director

Emerson K. McVey, M.D.
Medical Director

Frances Seyler
Administrative Assistant

SPECIAL PROGRAMS

Center for Cerebral Palsy and Handicapped
Children

Walter H. Hagen, M.D.
Medical Director

A. Arthur Benson, Coordinator
Resigned 7/63

Everett Peery, Ed.D., Coordinator
Appointed 9/63

Cleft Lip-Cleft Palate Program
Mrs. Venus Tretsven, Coordinator

DENTAL HEALTH

John R. Snyder, D.D.S., M.P.H.
Director

MICROBIOLOGY LABORATORY

Edith Kuhns, Director

DISEASE CONTROL

Mary E. Soules, M.D., M.P.H.
Director

HEART DISEASE CONTROL

Frank Brand, M.D., Director
Resigned 6/64

Fred Brown, M.D., Director
Appointed 6/64

SPECIAL PROGRAM

Rheumatic Fever and Heart Diagnostic Center,
Great Falls, Betty Gilson, M.D., Director

CANCER

Charles W. Pemberton, Director
Resigned 6/63

ENVIRONMENTAL SANITATION

C. W. Brinck, Director

Franklin Borchard, Sanitary Engineer
Billings Field Office

HOSPITAL FACILITIES

Robert J. Munzenrider, Director

PUBLIC HEALTH EDUCATION

(Mrs.) K. Elizabeth Burrell, Director

PUBLIC HEALTH NURSING

Wava L. Dixon, Director
Deceased 1/64

(Mrs.) Virginia Geiger Kenyon, Director
Appointed 3/64

RECORDS & STATISTICS

John S. Wilson, Director

INTRODUCTION

Within these pages are described the activities of the Montana State Board of Health during 1962-64. A conscientious effort has been made to provide the citizens of Montana with up-to-date public health services and programs.

Traditional programs such as communicable disease control are still present, for those problems still exist. Newer programs have been undertaken to combat problems brought on by an older population, urban living, industrialization and other conditions. As modern living becomes more complex, so do the activities of the State Board of Health, dedicated to the best interests of the health of the citizens of the State.

An impartial observer recently commented, "Even with all these very useful activities, the State Health Department in Montana appeared to be under-financed and under-staffed."* The per capita public health expenditures of the states in the above quoted study would bear this out:

Montana	\$2.05 per Capita
Idaho	2.66 per Capita
Wyoming	2.92 per Capita
Nevada	4.50 per Capita

Federal funds comprise approximately two-thirds of the total budget of the Montana State Board of Health. This is the highest ratio of Federal to State expenditures for public health of any of the fifty states. It is not so much that Montana receives more Federal funds, than it is that Montana has less State support of public health programs. Because much of the Federal financial support is "earmarked" for specific health problems, e.g. cancer, heart disease, tuberculosis, etc., there is a lack of flexibility to meet changing needs.

Among the new responsibilities of the State Board of Health during the biennium are the following:

1. State Board of Health designated as air pollution authority.
2. Construction authority for Community Mental Health Centers and Facilities for the Mentally Retarded.
3. Planning agency for comprehensive State Plan for the Mentally Retarded.

The future will find the State Board of Health doing different things in different ways to meet the needs of a growing, healthy Montana.



John S. Anderson, M.D., M.P.H.
Executive Officer

ORGANIZATION OF THE REPORT

Following these introductory pages, this report is published in three parts: PART I. PUBLIC HEALTH PROGRAMS, including Child Health Services, Dental Health, Disease Control, Environmental Sanitation and Hospital Facilities. PART II. GENERAL SERVICES, including Emergency Health Planning, Legislation, Local Full-Time Health Departments, Family Health Services for the Mentally Ill, Staff Committees, Microbiology Laboratory, Public Health Education, Public Health Nursing and Records and Statistics. PART III. ADMINISTRATION AND FINANCIAL TABLES.

Since often several programs and projects include more than one of these divisions, in addition to the cross references found in the text, no doubt the use of the index will be found helpful.

*Hospital and Health Resources in Montana and the four-state region of Idaho, Montana, Nevada and Wyoming. W.I.C.H.E., May, 1964.

PART II. PUBLIC HEALTH PROGRAMS, INCLUDING CHILD HEALTH SERVICES, DENTAL HEALTH, DISEASE CONTROL, ENVIRONMENTAL SANITATION AND HOSPITAL FACILITIES.

CHILD HEALTH SERVICES

Child Health Services encompass programs of Maternal and Child Health, including School Health, Crippled Children's Services with a special Cleft Palate Program and the Center for Cerebral Palsy and Handicapped Children.

Highlights

MATERNAL AND CHILD HEALTH

The testing program for phenylketonuria (PKU)—one of the causes of mental retardation—is under way with 28 Montana hospitals participating at the close of the biennium.

Pre-school vision screening programs have been initiated in an effort to detect amblyopia (lazy-eye).

Priorities have been selected for the initial steps in the development of a statewide Hearing Conservation Program.

High school boys are to be included on a larger scale in the "Education for Parenthood Program."

Closer working relationships with the instructors engaged in teacher training for school health in the State's institutions of higher learning are being developed.

Continued effort in cooperation with the Montana Medical Association and the Hospitals in the State is needed to reduce maternal and infant mortality, particularly among high risk groups.

More child health conferences and pilot programs in child health nursing conferences are needed.

More state coverage with public health nursing services with an adequate nurse-to-population ratio is needed so that more families can be provided with public health nursing services.

Improvement of school health programs is needed in many areas.

The "Education for Parenthood Program" for high school girls and adults should be extended.

MATERNAL MORTALITY

Members of the Montana Medical Association's Committee on Maternal and Child Welfare and the State Board of Health staff are becoming increasingly concerned about the rise in maternal mortality from a low reached in 1961. This may be more apparent than real due to methods of reporting, however, action in this respect requires increased facilities, further medical education, an improved quality of prenatal care and an improvement in the socio-economic facets of modern living.

Efforts are being made to improve the quality and quantity of prenatal care. Public Law 88-156 passed by the Congress in 1963 provides grants-in-aid for the establishment of improved prenatal care in problem areas. This service is intended for areas of high risk to reduce maternal and infant mortality, prematurity, birth defects, malnutrition and certain other factors.

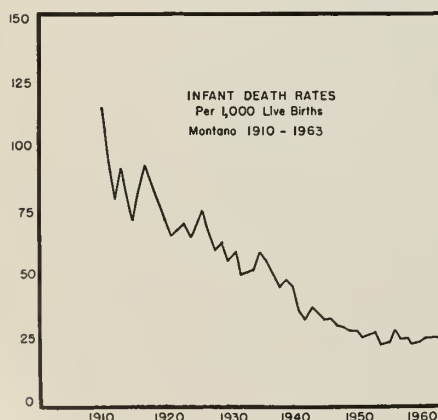
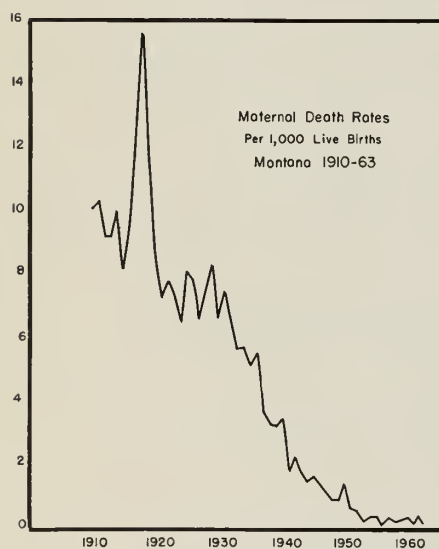
The essential idea behind this act is that the best prevention of mental retardation lies in the alleviation of such conditions; the present state of knowledge indicates that this can be done best by proper prenatal care.

INFANT MORTALITY

The infant death rate has declined from 58.2 per thousand live births in 1933 to 25.4 per thousand in 1962. The greatest drop in the death rate occurred prior to 1949, and since then the rate has stayed fairly constant from year to year with fractional changes.

The annual report "Infant and Neonatal Mortality and Stillbirth Rates by Montana Hospitals" was issued. This booklet is a comparative analysis of death rates by hospital and serves as a guide toward those conditions in need of correction.

Needs



NURSING EDUCATION



Premature Infants Need Skilled Nursing Care for the First Few Weeks of Life.

CHILD HEALTH CONFERENCES

HEARING CONSERVATION



Hearing Testing is Basic in a Hearing Conservation Program.

Through the Hospital Nursing Consultant, the State Board of Health provides education in maternity care for nurses working in hospital newborn nurseries, and especially for those nurses caring for premature infants. During the biennium Montana had six nurses attending the course on premature infant nursing at the University of Colorado, bringing the total to 32. The pamphlet "Nursing Care of the Premature Infant" was revised. It was used in courses on premature nursing in five hospitals in the State, reaching a total of 225 student nurses. There are also four hospitals which use the pamphlet for training practical nurses.

PUBLIC HEALTH NURSING SERVICES

Five area conferences were held to review public health nursing in Maternal and Child Health. These two-day conferences provide opportunity to discuss growth and development in each age group—prenatal, infant, preschool, and the child from 6-21 years.

In the years 1962 and 1963, 3,678 mothers had home visits from public health nurses during the maternity cycle. These nurses also made 25,302 home visits on behalf of infants, preschoolers, and school age children for health guidance, mental health, dental health, mental retardation, other diseases and conditions, and other communicable diseases.

However, the inadequacy of public health nursing coverage in the State is a handicap to the maternal and child health program as well as to others. This inadequacy is described in more detail in this report on pages 64 and 65.

Assistance to local areas in carrying on child health conferences was discontinued due to a cut in available funds. Its effect is striking in that the number of children seen decreased from a high of 8,555 in 1958 to a low of 1,403 in 1963. It is even more striking when consideration is given to the ratio of children served by these conferences to the population of infants and preschool children. This ratio was low even when the program was at its highest level.

During the biennium, six area conferences were conducted for public health nurses to assist in improving their efforts in prevention, case finding and follow-up in hearing conservation. Staff from the division participated in a Conference on Hearing Conservation reported on page 25.

An audiologist will be employed early in the next biennium and plans are underway for the development of a Hearing Conservation program.

PRESCHOOL VISION SCREENING

The preschool vision screening program for the detection of Amblyopia (lazy-eye) is described on pages 24 and 61.

EDUCATION FOR PARENTHOOD

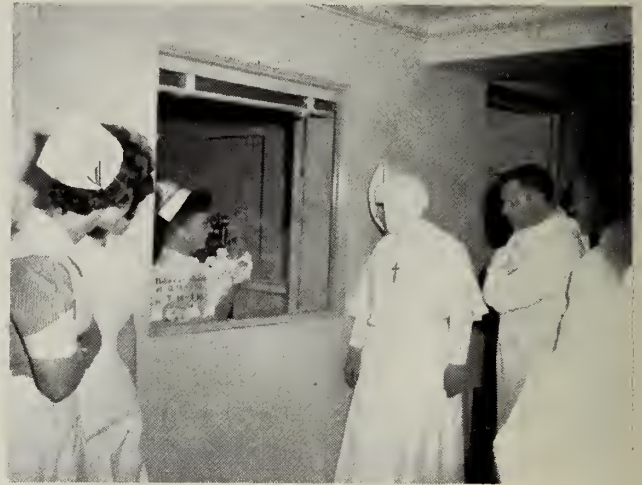
Since 1954, 8,098 parents and high school girls and boys have had the advantage of Education for Parenthood discussion groups on pregnancy, labor and care of a young infant. Each year one or more communities are added to the program.

Approximately 52 nurse leaders were active in the program in 1963. To further promote this program, a workshop for nurse leaders was held in June, 1963. Nineteen communities were represented with 20 nurses from hospital nursing services and 37 nurses from public health. Each nurse leader is furnished an "Education for Parenthood Guide." This Guide was revised for the fourth time in 1963. The MCH Nursing Consultant made 33 visits to communities to meet with nurse leaders on behalf of this program.

In June, 1964, a one week workshop for men teachers on the "Education for Parenthood Program" was held. It is expected that this program will then be carried on for high school boys under the leadership of these participants in their respective high schools, beginning in the fall of 1964. Then just as soon as possible, it will be extended to other schools.



Nurses Practice Exercises as a Part of "Education for Parenthood" Instruction.



Men Faculty Members Tour a Hospital as a Part of "Education for Parenthood Workshop."

MENTAL RETARDATION

This division will cooperate in the over-all Mental Retardation Planning Program carried out with the Divisions of Disease Control, Public Health Nursing and Public Health Education in a statewide program to combat mental retardation. The State PKU program has met with good response and at the close of the biennium, 28 hospitals were carrying out the "Guthrie" test of newborns. One case was discovered by this test and the child is on dietary treatment and doing well.



Mental Retardation Workshop Was Attended by Nurses.

SCHOOL HEALTH

Close working relationships continue to exist between the State Department of Public Instruction and the State Board of Health. This is brought about by the Joint Staff Committee composed of representatives from the two departments. In addition to this Joint Staff Committee, there is an Advisory Council with representatives from about twelve education groups and the same number of health groups. Through this council matters of concern are presented and encouragement to the two staffs is given in carrying out needed health programs.

Conferences between representatives from the Joint Staff Committee and staff from the institutions of higher learning in teacher training for school health in Montana have been initiated. The purpose of these conferences is to provide opportunity for the exchange of information and to find ways in which there can be mutual assistance in the development of school health programs.

During the summer of 1963, a one week workshop on "School Health" was sponsored by the State Board of Health and the State University with cooperation and assistance from the State Department of Public Instruction. There were 27 teachers and 7 public health nurses enrolled in the workshop.

The promotion of the use of the "Guide for the Montana School Health Program" has continued.

School Health Records continue to be provided to Montana schools. Literature is distributed on request and films are loaned.

CRIPPLED CHILDREN'S SERVICES

Highlights

The success of the heart surgery program with almost miraculous results is most gratifying.

The cooperation received from program physicians—busy men with their own private practices who give of their time and talent—makes the Board's services to handicapped children successful.

The exceptional services given at the Center for Cerebral Palsy and Handicapped Children and by the Cleft Palate Teams continues. These sources, which have been developed through the Crippled Children's Program, give a comprehensive team approach to children who need such a wide range of coordinated service.

—At the Center a speech evaluation clinic has been developed, as have more effective procedures for language stimulation. An auditory training table for the speech department and a treadmill for the physical therapy department have been obtained. The use of IBM tabulating has been inaugurated.

—A Mental Retardation Clinic on a pilot basis will be established at the Center in September, 1964.

—An Audiologist will be added to the staff at the Center.

—The National Foundation will provide some financial support for a portion of the therapy program at the Center.

Needs

The Crippled Children's Program has the following needs:

—A diagnostic clinic for children with complicated problems such as seizures, and mental retardation.

—An in-patient rehabilitation center for many conditions, but particularly, for teen-age paraplegics. At the present time the services are provided only on a piecemeal basis.

—Other diagnostic categories should be included in the program. Recent advances in medicine have made definitive methods of care available to children who formerly had fatal chronic diseases.

—A means of determining, in advance of care, the amount of insurance benefits which will be available so that the family and agency can plan realistically for meeting the remaining cost.

—Financial support from the State for the operation of the Cleft Lip-Cleft Palate Program.

—The Center for Cerebral Palsy and Handicapped Children needs more adequate housing.

—The Center needs additional professional staff to provide adequate care for the handicapped children of the State.

THE PROGRAM

The purpose of the Crippled Children's Program is to provide diagnostic and treatment facilities for children who, because of a handicap, are unable to function to the best of their abilities.

This is done by finding and assisting children to obtain necessary care, whether they are eligible for direct program services or not and by assisting families financially if the care is beyond their ability to pay.

KINDS OF CASES ACCEPTED

Because of administrative and budget restrictions, the conditions which are accepted are those which are amenable to treatment. These include orthopedic and neurological conditions, either congenital or acquired, congenital heart disease, neoplasms and rheumatic fever. Children who are thought to be mentally retarded are not excluded from the program.



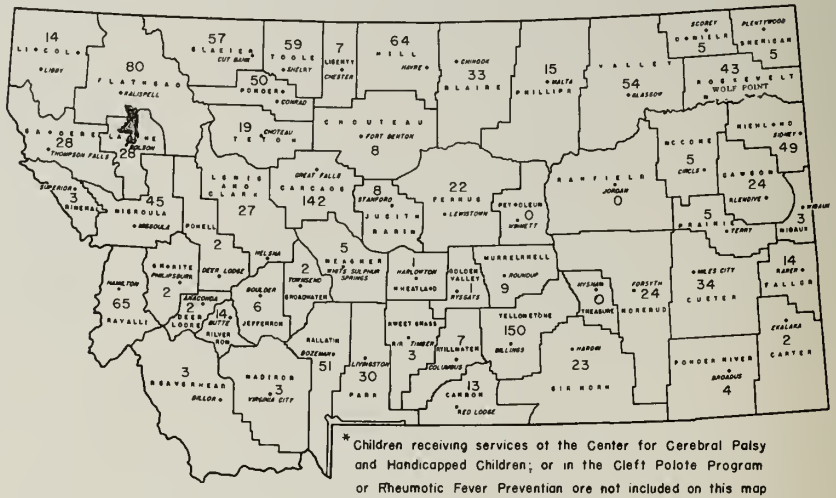
Crippled Children's Services Are Available to Children From Infancy to 21 Years of Age.

NUMBERS OF CHILDREN SERVED

The total number of children on the Crippled Children's Program Register in the last five calendar years is:

1959—5,745; 1960—5,884; 1961—6,044; 1962—6,072; 1963—6,060. Physician's services under the Crippled Children's Program in 1963 totaled 1,372 and are shown by county of residence in the accompanying map.

NUMBERS OF CHILDREN RECEIVING PHYSICIANS SERVICES UNDER THE MONTANA
CRIPPLED CHILDREN'S PROGRAM DURING 1963. TOTAL 1,372.



CRIPPLED CHILDREN'S CLINICS

There were 78 diagnostic categories among the 1,372 children seen. Those most frequently seen and given services are:

	1961	1962	1963
Cleft Lip and Palate.....	150	142	177
Cerebral Palsy	147	123	129
Congenital Dislocation of Hip.....	85	93	77
Abnormalities of Feet and Legs.....	582	527	448
Other Malformations of Bone and Joint, Congenital and Acquired.....	111	104	65
Effects of Polio.....	54	37	46
Curvature of the Spine.....	47	40	35
Amputations, Congenital and Acquired.....	23	24	23
Conditions Due to Violence (Except Amputations)	23	25	18
Spina Bifida and Meningocele.....	10	5	12
Examinations Made, No Abnormalities Reported	31	34	43

Congenital Heart Cases. — From July 1, 1962 through June 30, 1964, 112 congenital heart cases were seen through the Crippled Children's Services.

A few examples of a variety of cases which have been carried for several years together with the costs involved for each child illustrate that the cases vary and that each must be considered individually. These cases also point up the need for providing counseling and financial assistance to the families of these children.

For instance, a child with his legs paralyzed in an accident was carried for three years and seven months at a cost of \$2,921.29 while another similar case was carried one year and nine months at a cost of \$5,915.05.



An Orthopedic Surgeon Examines a Child at Crippled Children's Clinic.



A Public Health Nursing Interview Takes Place With a Parent, Following a Crippled Children's Clinic Examination.

Another child born with all four extremities missing at birth was carried for 19 years at a cost of \$11,048.61; a child born with a congenital hip was carried for five years and four months at a cost of \$2,200.72; another child with multiple birth defects was carried five years at a cost of \$1,564.40 and another for eight years at a cost of \$1,608.87; a child with club feet was carried five years at a cost of \$448.31.

Providing diagnosis and financial assistance when needed does not always solve the problem of securing necessary care for a child. For this reason, the State Board of Health has taken the leadership in developing some needed specialized resources. These include the specialized services of this program described below. Others are the Rheumatic Fever and Heart Diagnostic Center described on page 27.

SPECIAL SERVICES IN THE CRIPPLED CHILDREN'S PROGRAM

PROGRAM FOR CHILDREN WITH CLEFTS

SERVICES PROVIDED DURING THE BIENNIUM

Over 300 children are carried actively on the Board's Cleft Lip-Cleft Palate program. An average of 33 babies is born each year in Montana with these disorders and most of them are immediately enrolled in the Program which provides team recommendations for care. The teams are composed of specialists who may be involved in the child's care.

Team evaluations are provided without cost to patients but their families are expected to pay for the recommended procedures when they are carried out, if the family is able to do so. If not, financial assistance is given to those who need it if they are eligible.

The table below shows the number of children seen each year since 1956:

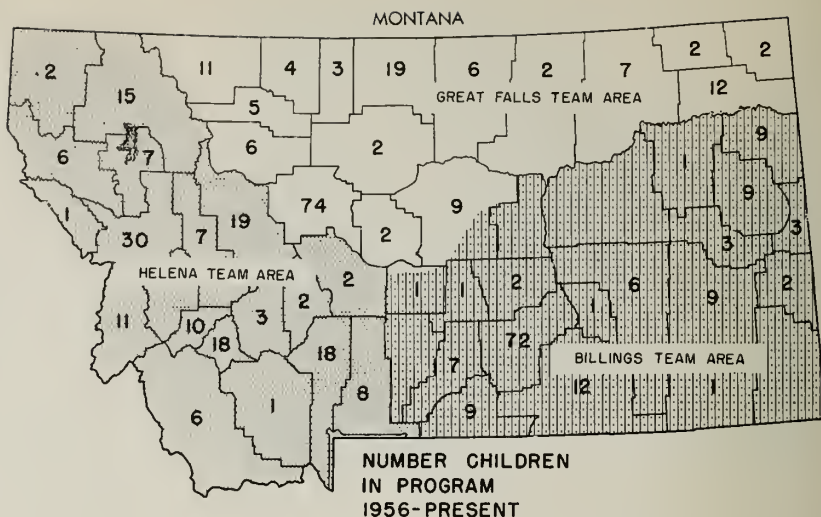
Year	Children Seen
1956	85
1957	126
1958	123
1959	122
1960	121
1961	119
1962	120
1963	148
1964 (est.)	153

The accompanying map shows the number of children by county who have received services in this program since the program was initiated in 1956.

SERVICES GIVEN CHILDREN 1956 - 1963

Year	No. Lip Surgery	No. Palate Surgery	No. Rec. Orthodontia	No. Rec. Prosthodontia
1956	35	9	10	18
1957	40	8	13	18
1958	40	10	31	26
1959	31	13	49	21
1960	21	32	20	9
1961	15	11	26	7
1962	17	27	21	19
1963	23	18	18	16

Team evaluations began in 1955 with 41 cases evaluated.



REPORT ON THE 502 CASES RECEIVING SOME TEAM CARE

July 1956 - June 1964

Active	Private	Over Age	Mental Institutions	Died	Discontinued*	Moved	Unable to Locate	Maximum** Correction
304	6	12	8	21	22	79	7	44

*Care of children in this group was started before "Team Care" was available.

**Many more cases are well on way toward maximum correction but final treatment must wait upon growth.



Billings Cleft Palate Team.

The program has been financed by a \$50,000 grant from the Children's Bureau as a demonstration project, to show what could be done in a rural state by utilizing the new and more satisfactory care for these children, through the development of these teams.

The Montana demonstration program has shown that clefts no longer need be educational, emotional or vocational handicaps. There is now a need for Montana to assume financial responsibility for the operation of this program.

FINDINGS

Since the Montana program includes almost all of the children from the State who are born with this handicap, it is possible to carry out some studies which have meaning for the whole field of Cleft Palate Rehabilitation. Cleft Palate teams in many areas have only a sample type of population such as hospital population with which to deal, but in Montana there is no such limitation.

One of the first facts found by the staff working in this program is that during these seven years the incidence of cleft palate is much higher in Montana than had been anticipated. It had been expected that one child out of a thousand would have a cleft; however, studies now show that one baby in 480 live births will have a cleft palate. It also has been shown that Montana's Indian population has an even higher ratio of cleft palates; over the past seven years, one Indian baby out of 296 live births was born with some type of cleft.



When an Infant is Born With a Cleft Lip or a Cleft Palate It is Often an Emotional Shock to the Parents.



Cleft Lip Before Surgery.

MONTANA CENTER FOR CEREBRAL PALSY & HANDICAPPED CHILDREN

The "Center," initiated in 1947, is sponsored by the State Board of Health, Eastern Montana College and the Billings School District No. 2. It provides services for children with multi-handicapping conditions from all parts of the State. The services are provided through Medial Clinics and Special Education classes, by a team including specialists in pediatrics, orthopedics, speech and hearing therapy, physical therapy, public health nursing, medical social work, special education, psychological evaluation, and a limited amount of psychotherapy.

Plans are underway to initiate an evaluation clinic for mentally retarded children on a pilot basis.

The facilities at Eastern Montana College in Billings were not originally designed for the purpose of housing the "Center" and only limited services were provided to children from an area in the Billings vicinity. As the services have been extended to children from throughout the whole State and as the program has developed this space has become more inadequate each year.

A ground-floor facility with areas especially designed and equipped for the kind of activity for which it is to be used is urgently needed. An effort is being made to secure a new building to house the Center.

With the assignment of an audiologist from the Board's Hearing Conservation Program, it will be possible to provide a more adequate program of evaluation and therapy for the hard of hearing children in the program. The position of an occupational therapist will be filled in the next biennium to help provide a more complete program in the area of physical defects.



"Team Care" Provides Excellent Rehabilitation for Montana's Children Born With Cleft Lips or Palates.



Medical Clinic Staff at the Center for Cerebral Palsy and Handicapped Children.



The Public Health Nurse Interviews the Parents of Patients for the Medical Evaluation Clinics, Cleft Palate Clinics Serving the Billings Area, and Speech Evaluation Clinics. She is Responsible for the Scheduling of Patients for Clinics and for Out-Patient Therapy Programs.



Psychological Evaluation for Those Persons to be Seen at Clinics as Well as Those Who Are in the School Program Are Made by the Clinical Psychologist. The Evaluation of Mentally Retarded Children Will Also be Made When the Clinic for the Mentally Retarded is Established.



Stretching, Exercising and Gait Training Are Some of the Kinds of Therapy Administered to Those Students in the School Program and Out-Patients Who Need This Service. The Physical Therapist Also Participates in the Medical Evaluation Clinics.



Developing the Ability to Communicate Verbally is of Primary Importance to Students Who Are Restricted in Their Ability to Participate in Some of the More Active Human Endeavors.



The Preschool Program is Designed for Those Children With Physical Handicaps Who Can Benefit From an Organized Program of Physical Therapy, Speech and Language Stimulation and the Kind of Social Training Available in the Classroom.



Electric Typewriters With Specially Designed Guards Over the Keys Afford Some of the Students With Their Most Effective Form of Communication. Due to Their Lack of Coordination They Are Unable to Write Acceptably and Often Their Speech is Difficult to Understand. Therefore, They Learn to Communicate Via the Electric Typewriter.



After the Medical and Social History Has Been Taken and the Patient Has Received His Psychological, and Speech and Hearing Evaluation in the Speech Clinic, the Parents Are Counseled and Advised Concerning the Speech Problem Presented.



Students With Hearing Difficulties Are Given Special Training in the Development of Listening Skills, Concept Formation and Speech and Language Development as a Part of the Program in the Speech Department.



Each Week Two of the Students Enrolled in the School Program at the Center Are Evaluated by the Members of the Staff and a Conference is Held With the Parents. Recommendations for Changes or Continuation of the Therapy and/or School Program Are Discussed. Each Parent is Invited to a Conference at Least Twice a Year.

**CASE EVALUATIONS BY DISORDER AT
CENTER FOR CEREBRAL PALSY & HANDICAPPED CHILDREN
JULY 1, 1962 TO JUNE 30, 1964**

Disorder	No. Evaluations
Cerebral Palsy	203
Other orthopedic problems including spina bifida, muscular dystrophy, amyotonia congenita, etc.	25
Miscellaneous, including retarded, epileptics, post-encephalitis, etc.	65
Hearing Problems	82
Cleft Lip and Palate	112
Other Speech and/or language handicaps	275
TOTAL	762

**KINDS OF SERVICE PROVIDED WITH
NUMBERS OF CHILDREN RECEIVING EACH
AT THE CENTER FOR CEREBRAL PALSY & HANDICAPPED CHILDREN
JULY 1, 1962 TO JUNE 30, 1964
AND
CUMULATIVE TOTALS SINCE 1947**

	1962-64	Since 1947
Diagnosis and evaluation clinics	44	333
Children seen for initial evaluation at medical evaluation clinics	73	588
Children seen for re-evaluation	238	1,708
Children attending full-time school*	57	265
Children released for other placement, school, institutions, etc.	10	129
Children receiving psychological testing	484	984**
Individual children at medical clinics and/or for speech and hearing problems	862	

*School program started in the spring of 1948

**Since July 1959

DENTAL HEALTH

Dental public health is concerned with the prevention and control of dental disease through organized community effort. The program is carried out by means of prevention, services, education and research.

Highlights

Highlights of the Biennium include:

Lewis and Clark County Dental Health Survey.

Ten year evaluation of controlled fluoridation benefits at Bozeman.

Roundup City government unanimously defeated an attempt, by an anti-fluoridation group, to discontinue its eleven-year beneficial program.

The cooperative efforts of citizens, professional people, public health agencies, and school authorities on topical fluoride programs in Ravalli County, the X-ray programs at Malta and Great Falls in observing Dental Health Week.

The increasing awareness and appreciation of the dental profession of its responsibility in the areas of dental education, and dental health for all Montanans, particularly the children and the chronically ill and aged. The growing concern of the education profession over the vast dental disease problems of students, and the desire to aid in their solution.

The developing interest in research and scientific approach as to dental health problems.

The cooperative efforts of dentists and physicians in solving problems of mutual interest and concern.

Needs

The needs of the Dental Health Program are:

An increase in operating monies and personnel if an effective and efficient dental health program is to be maintained and expanded as the need continues to grow.

A concerted effort to overcome the lack of interest and knowledge of most of the public in dental health.

The necessity for legislators and governmental officials to take more positive steps toward the prevention of dental diseases.

DENTAL HEALTH STATUS

Dental health status is measured by the number of DMF teeth, that is, the number of decayed, missing and filled teeth found upon survey examination. The over-all permanent tooth DMF rate in Montana for children 6-13 years of age is 3.0.

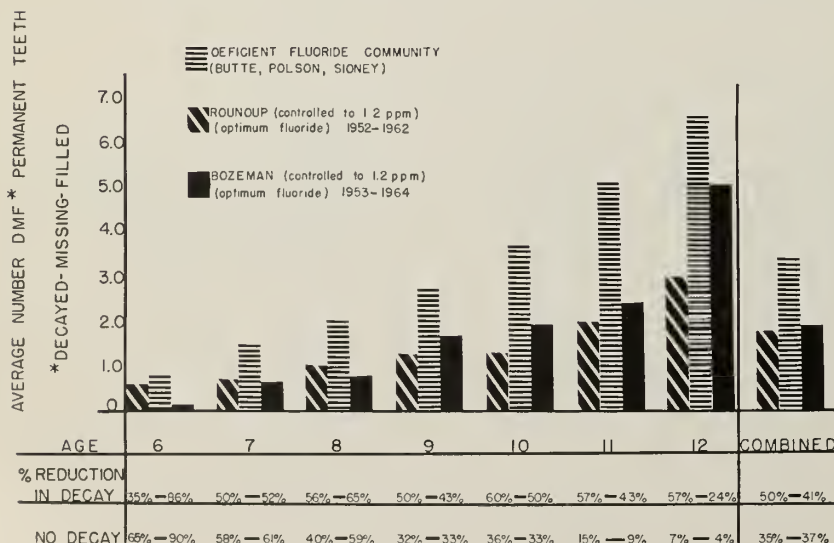
PREVENTIVE MEASURES

There are three methods in which fluorides can be utilized in the prevention of dental decay. They are (1) the natural or controlled fluoridation of public water supplies; (2) the application of fluoride solutions to the teeth of individual children; and (3) the addition of fluoride to the individual child's diet by prescription.

CONTROLLED FLUORIDATION OF PUBLIC WATER SUPPLIES

If the water supply is not sufficient in fluoride content, i.e., 1.0-1.2 parts per million (ppm), the controlled fluoridation program is the most efficient and economical method as it reaches the largest number of children. Optimum benefit of this measure depends upon children having the advantage of fluoridated water from birth to at least ten years of age. This is the period when the enamel is forming in the children's permanent teeth and when the fluo-

DENTAL HEALTH BENEFITS AFTER 10 YEARS OF FLUORIDATION



rides are needed. The **average** reduction in the DMF rate by this method is 65% or about a $\frac{2}{3}$ reduction in dental caries (decay).

It is important to note that these reductions are average which means some children will have a smaller and others a greater reduction.

Montana survey results are interesting when compared to the availability of this preventive measure in the respective communities. The highest DMF rate of 5.73 is at St. Ignatius where there is no fluoride in the water supply. Controlled fluoridation is being considered there now. Denton which has the optimum natural fluoride content in the water supply, has the lowest DMF rate of 1.30. The difference between the highest and lowest is 4.43, a 77% reduction in decay experience.

Over 40 communities in the State with a population of 100,174 have fluoride in the amount of 0.7 ppm occurring naturally. (In these communities the addition of fluorides to bring the amount up to 1.0 or 1.2 is not recommended.) There are many private wells in the State with adequately fluoridated water also, while some have more than the recommended amount.

BOZEMAN POST- FLUORIDATION SURVEY

During the biennium a post-fluoridation survey was carried out in Bozeman, the results of which are shown in the graph on page 16. The graph shows the value of this program to Bozeman and Roundup in the reduction of dental decay as compared with the composite score of three communities (Butte, Polson and Sidney) where little fluoride exists in the public water supplies.

In the Bozeman survey the teeth of 450 children in the ages six through 12 who had lived in Bozeman all their lives or at least the past 10 years were examined. The overall DMF rate was 1.96, with a 41% reduction. The six-year-olds experienced the greatest reduction—86%, while 90% of the children were free of decay. The ten-year-olds showed a 50% reduction in DMF rates, with 33% free of decay.

Other interesting information brought out in the Bozeman survey revealed that 70% of the DMF teeth had been restored, while 27% still remained decayed and 3% had been extracted or needed extraction and were classified as missing.



Local Dentists Are Pictured at Work During the Bozeman Post-Fluoridation Survey.

The on-going controlled fluoridation program in Bozeman in the prevention of decay and the excellent record of restored teeth, is an indication of excellent community action in providing for the good dental health of its children. Other communities, in addition to Bozeman and Roundup, which are taking advantage of the benefits of controlled fluoridation are Miles City, begun in 1955; Laurel, begun in 1958, and Conrad, begun in 1962.

Interest in the city of Billings in establishing a controlled fluoridation program is growing. This community is going about its educational and promotional program in a somewhat different manner than has been done in other Montana communities. The Mayor has appointed a professional advisory committee composed of representatives from the dental, medical, nursing, and public health groups to provide scientific information and advice relating to a controlled fluoridation program. A dental survey for school children in this community is planned for early in the next biennium. This will provide a sound basis for a scientific approach toward the initiation of this program.

The city of Dillon, unfortunately, defeated a referendum for the second time on the issue of fluoridation.

A dental survey was conducted in Lewis and Clark County as a part of the "Public Health Survey." This was the most comprehensive dental survey that has been done in Montana. There were 1,952 children examined between the ages of 6 and 13. In this survey the DMF rate was 3.30 for Helena and 3.02 for the rest of the county which is slightly above the Montana average of 3.0. Comparisons with a Helena survey done in 1908 by T. T. Rider, D.D.S., now of Missoula, show an astounding gain in the dental health of the school children in the community. See page 20.

TOPICAL APPLICATION OF FLUORIDES

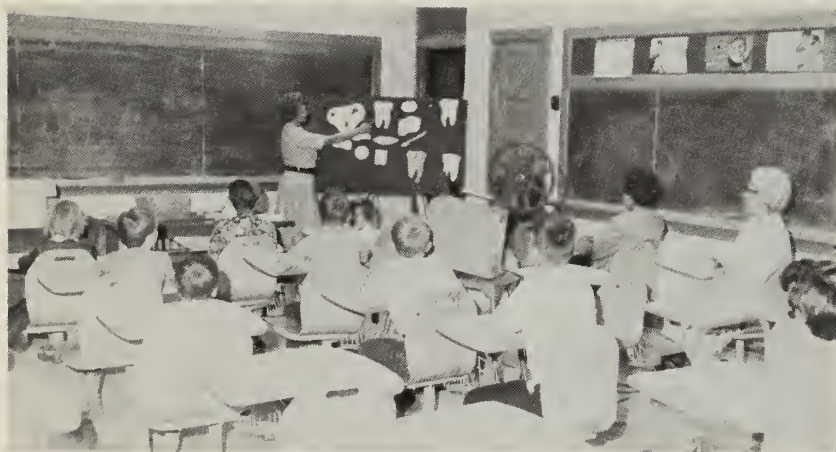
During the biennium "topical fluoride" application programs were carried out in Ravalli County in 1962 and 1963, with a third planned for July 1964. This method for the prevention of dental decay consists of a series of treatments which reduces dental decay between 40-50% as compared with an approximate reduction of 65% in the controlled fluoridation of the public water supplies.

These community programs are sponsored by the County Health Council with assistance from the SBH Dental Director and with the participation of practicing dentists, dental hygienists, school authorities and parents. Between six to seven hundred children benefit from this program each year.

The program was carried out in both years by six practicing dentists, three dental hygienists, three public health nurses and from 50-65 volunteers, many of whom were the mothers of the children participating.

Dental health education programs were conducted both years with assistance from the health educators in the State Board of Health. In 1963, nine teachers carried out the instructional program for the children.

Equipment needed to carry out the program is loaned by the Public Health Service Laboratory at Hamilton; the Area Dental Office, Division of Indian Health, Billings, the State Board of Health and local dentists.



Pictured Above Are Some of the Ravalli County Children Receiving a Topical Fluoride Application to Their Teeth. In the Picture Below, One of the Volunteer Teachers is Demonstrating the Mechanism of Dental Decay.

INDIVIDUAL FLUORIDE ADDITIVES

Interest is growing in another method of reducing dental decay—the use of additive fluorides in the diets of children during the first ten years of life on a prescription basis. This interest is from dentists and physicians whose patients live in areas of the State where either the municipal or individual water supplies lack fluorides in the recommended amount. The effectiveness of this method has yet to be proven.

HIDDEN CAVITY DETECTION PROGRAM

Programs were conducted at Malta and Great Falls to stimulate child visits to the dentist and to inform the parents and children of the value of dental X-rays as an aid to diagnosis and treatment.

In Malta, 128 children in the first three grades were X-rayed, 81 from Malta public schools, and 26 from the parochial school, eight from Dodson and 13 from Saco. A local dentist, a public health nurse, the SBH Dental Director, and eight mothers carried out the program in cooperation with the school administration and teachers.

In Great Falls, the program, carried out during "Dental Health Week," reached five elementary schools. The number of children X-rayed was 343,

with 10 dentists, public health nurses, dental hygienists and dental assistants, the local and SBH Dental Directors and 40 women volunteers carrying out the program.

MOUTH PROTECTOR PROGRAM

The program, inaugurated in 1962, to require high school boys playing football to wear mouth protectors, continues. It is carried out in each local area with the SBH Dental Director studying the results and giving advice as requested.

The purpose of this program is to reduce the injuries to the brain, teeth and face in contact sports. Studies have shown that these injuries can be reduced by more than 90% if the participants wear the best mouth protectors.

RADIATION CONTROL

At this time 93% of the X-ray units in dental offices have been monitored. This program is carried out in cooperation with the SBH Disease Control Division and is explained in more detail on page 33 of this report. The U. S. Public Health Service Radiological Health Unit assists in the technical phases of this program.

The Radiological Health Specialist is now visiting dental offices upon request when he is in an area to determine the present status of the X-ray units. If excess radiation is evident, recommendations are made for its reduction. Certificates of approval are awarded on the request of the dentist if his X-ray equipment meets the required standards. At this time 50% of the dentists have been awarded this certificate.

The final report of this program will be prepared for publication by the Public Health Service in "Radiological Health Data," a magazine which the Service publishes.

DENTAL REFERRAL CARDS

The use of Dental referral cards for pre-school children is continuing. These cards are distributed by the local public health nurses as a reminder to parents of the importance of visits to the dentist for their pre-school children.

The school program is still in the process of reorganization with some schools carrying out their own programs at this time.

PROFESSIONAL EDUCATION

A course demonstrating the procedures involved in the more effective utilization of trained chairside dental assistants was conducted in October 1962. This was a postgraduate course and was conducted in Missoula, Bozeman and Great Falls. By effective utilization of these assistants, the individual practicing dentist can save time and see more patients, thus expanding dental health services in each community. This course was sponsored by the Montana Dental Association, District Dental Associations two, four and six, SBH Dental Division, and the Public Health Service. Certificates were issued to 54 dentists and 94 dental assistants and hygienists who completed the course.



A Local Volunteer Registered Nurse Demonstrates Sterile Techniques to Two of the Eight Volunteer Mothers in the Malta Survey.



One of the 10 Dentists, One of the 10 Dental Assistants and the Local Public Health Dental Director Are Pictured Above During the Great Falls Bite-Wing Dental Survey.

Exhibits at State Dental meetings have included: "Fluoridation" (2); "Oral Cancer Detection" (2); "Medical Self-Help"; "Radiation" (3); "Montana Cleft Palate Program"; "Hidden Sugars," and a new one, "Decalcification Potential of Various Foods."

DENTAL HEALTH EDUCATION

In addition to the dental health education programs already described, other educational programs have been carried out with the cooperation of public health nurses, health educators and local school and college faculty members at Twin Bridges, the Emerson School in Butte, and the Engineering Society at Billings. These people are in addition to the members of the dental profession. Seminars for college students have been conducted at the State University in Missoula (2), Northern Montana College, Havre; Western, at Dillon (2); Eastern, at Billings (2), and Montana State College at Bozeman. Dental Health was also one part of a School Health Workshop described on page 8 of this publication.

Special emphasis was given to stimulate more interest in Dental Health during "Dental Health Week" which was proclaimed by Governor Tim Babcock.

LACTOBACILLUS PROGRAM

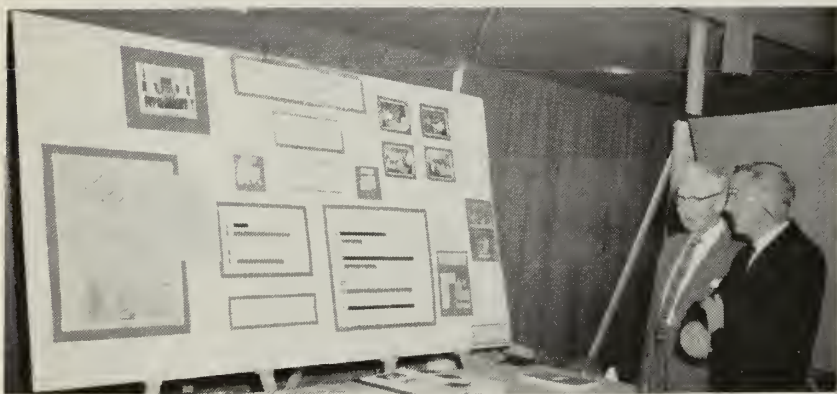
The microbiological laboratory continued to run lactobacillus examinations for the practicing dentists during the biennium. This is an aid in determining individual patient susceptibility to dental decay. It is also used to measure the success of a dietary program for the control of dental decay.

MSDA COOPERATION

The Montana Public Health Dental Program could not be carried out without the cooperation and participation of the Montana State Dental Association and individual practicing dentists. In the local programs which have been carried out over 100 dentists have participated on a volunteer basis during the biennium.

The Dental Education Committee of the Montana State Dental Association is investigating the feasibility of establishing a Dental Hygiene School in Montana. Also approved by the MSDA is a study on the Dental Problems and Care of the Chronically Ill and Aging.

In cooperation with the SBH Division of Disease Control, an oral cancer detection program will be developed on a study basis. A proposal is in the planning stage to provide training for dental practitioners to work with the mentally retarded which would be carried out at the State Training School in Boulder. In cooperation with the Montana State Dental Association, a scientific session on "Dental Care for the Mentally Retarded" will be presented at the 1964 meeting of the American Dental Association.



T. T. Rider, D.D.S., Missoula, and R. O. Betzner, D.D.S., Helena, preview a dental health exhibit to be shown early in the next biennium. This exhibit illustrates the comparative findings of a 1908 dental health survey Dr. Rider conducted when he was practicing in Helena, with a 1963 dental health survey. The 1963 survey was conducted by the members of District 5 of the Montana State Dental Association of which Dr. Betzner is currently the president and John R. Snyder, D.D.S., M.P.H., the SBH dental director.

The results indicate that the number of children needing permanent tooth care for decay was more than three (3) times greater in 1908 than in 1963; that the children had lost more than seven (7) times as many permanent teeth; and that 92% more children had poor oral hygiene in 1908 than at the present time. Today more than twice

as many children have good bites (occlusion) than they did 55 years ago and almost three-fourths of their decayed teeth are now adequately restored.

DISEASE CONTROL

Disease Control includes programs in Chronic Disease; Heart Disease, including the Heart Diagnostic Center; Cancer; Industrial Hygiene, including Air Pollution and Radiological Health; Communicable Disease, including Acute Communicable Diseases, Tuberculosis and Venereal Disease. The Chemistry Laboratory is also a part of these services.

Highlights

An advisory committee to the Venereal Disease Control Program has been formed. Improved reporting and case-finding have occurred during the biennium.

The heart sounds of eight thousand school children in seven northeastern counties were recorded in an attempt to find unknown cases of heart disease.

The Heart Diagnostic Center provided diagnostic services to the State's physicians for 592 patients coming from 46 Montana Counties.

Ways and means are being considered to find the needs of the Mentally Retarded and to develop a statewide plan to meet these needs.

A project to study the effect of exercise on middle-aged men was started in Helena.

The Out-of-Hospital Nursing Care Program and the program to improve care in Nursing Homes are providing services that are greatly needed. Nutrition services have been added to the Board's Chronic Disease program.

Among the problems of the Aged, "health" was mentioned most often in a "Self-Survey of the Chronically Ill and Aged in Missoula."

At a Conference held at the close of the biennium, the participants recommended the State Board of Health initiate a hearing conservation program for all age groups.

In nine counties an educational program has been promoted to encourage women 20 years of age and over to seek a cervical cancer detection examination in the office of their family physicians. Of the women reporting back, 39% had their first such examination.

Pre-school vision screening programs are resulting in finding children with previously unknown needs for eye care.

The second tumor clinic in the State was established in Missoula. There were 248 plants and mines studied in the Industrial Hygiene Program.

A seven-city air pollution study was made and the report of the findings was completed.

"Polio Clinics" have raised the protection of the State's population against poliomyelitis.

In 1963 there were no cases of smallpox for the eleventh year; none of diphtheria in 1963 and only six in 1962; one typhoid case in 1963 and there was no major influenza epidemic.

Needs

With increasing mortality from coronary heart disease, more emphasis should be placed on the utilization of the known prevention of this disease. Much more can be done in the rehabilitation of stroke victims. More staff to assist industries meet the newly created industrial health hazards is needed.

Improved immunizations against whooping cough among young children, and diphtheria and tetanus protection of the general population is needed. Increased public health services in tuberculosis control should be provided.

Changes in the antiquated venereal disease laws are required. More sophisticated analytical measuring equipment in the chemistry laboratory is essential.

CHRONIC DISEASE CONTROL

IMPROVEMENT OF PATIENT CARE IN NURSING HOMES

During this biennium there has been a slow but steady growth in services to the chronically ill and aged in Montana. The services include extending the program to improve nursing care in Nursing Homes; establishing a new "Out-of-Hospital" care program; and providing nutrition services, particularly as applied to the chronically ill.

"Mr. Kelly, a stroke patient, proudly walks on his cane across the room to greet the nursing consultant from the State Board of Health. This he did five months after she conducted a course for the nursing home personnel in this area on rehabilitative nursing. With tears in his eyes, he tried to say 'thank you' for the help she had given to make his progress possible. Five months ago he had required complete bed care, now he gets up each day, is fully dressed and he can walk." This is but one example among many.

The nursing consultant says the "credit" for this patient's progress goes to the three members of the nursing home staff who attended the course she conducted.

During the biennium, one hundred ten nursing home personnel from 24 institutions have attended the courses conducted in various areas of the State.

Some weeks or months following the course, the nursing consultant makes a follow-up visit at each institution.

Focusing on the needs of the chronically ill and aged is relatively new not only among professional health workers, and auxiliary helpers, but also to the people of most communities. This project is directed toward assisting all these groups to get a better understanding of the needs of the older patients.



Patient is Taught to Feed Herself.



**A Patient With Multiple Sclerosis
Needs Full Assistance in Wheel
Chair Transfer.**



**The Same Patient Has Progressed so
That She Needs Minimum Assistance in
Wheel Chair Transfer.**

OUT-OF-HOSPITAL NURSING CARE



The Public Health Nursing Consultant Reviews Colostomy Irrigation, Utilizing Demonstration Equipment.

This program, out-of-hospital nursing care, an adjunct to the public health nursing services already provided, was started at the beginning of the current biennium. Through home visits, the local public health nurses provide patients with individualized nursing care and treatments, health instruction and supervision, and give assistance in getting other needed community services.

Innumerable preventive, curative, and restorative means brought about by nursing care are realized by home-bound patients of various ages at nominal fees.

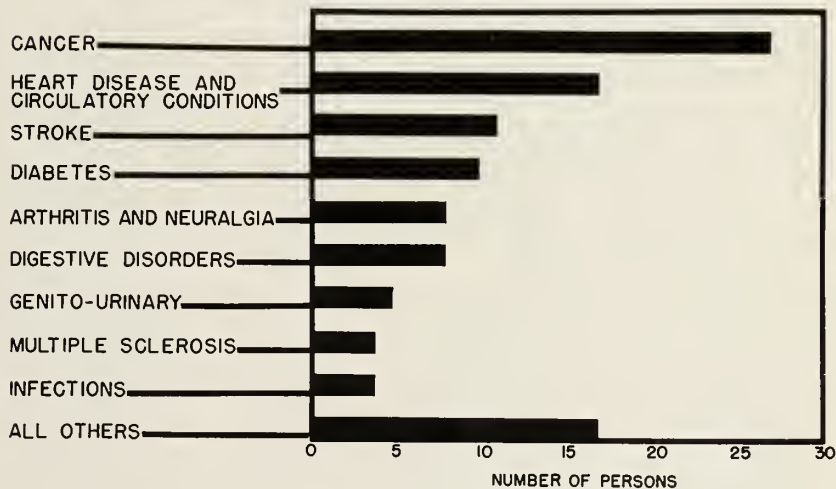
In Missoula and Ravalli Counties of Montana, the Out-of-Hospital Care Program served 111 persons in the two-year period, July 1, 1962 to June 30, 1964. Of these, nearly 76% (84 persons) were 65 years and over; 27 persons were under age 65. More persons received Nursing Care in the Home in the age span 65-74 years than in any other ten-year span of age.

Health education assistance has been provided in this program in two counties to assist citizens in determining the needs, and in stimulating local involvement so that the needs of this group of people will be realized.

One county has added a part-time nurse to meet the demands of this service. Another county is seriously working toward a community homemaker service which is a valuable adjunct to nursing care in the home.

NUMBER OF PERSONS, BY DIAGNOSIS, SERVED BY OUT-OF-HOSPITAL NURSING CARE PROGRAM:

MISSOULA AND RAVALLI COUNTIES, MONTANA
JULY 1, 1962 TO JUNE 30, 1964



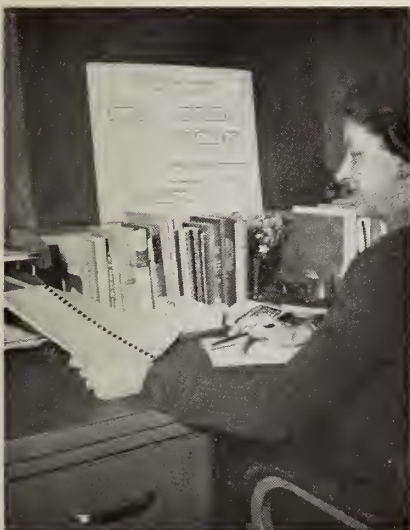
NUTRITION SERVICES

The position of Nutrition Consultant was established in July 1963 and the position was filled in October of that year. Her activities are chiefly centered in the Chronic Disease program. On physician referral, she has given assistance to families in which there are children with phenylketonuria and diabetes. She helps them with diet calculation and helps them plan the restricted diets for their children.

A nutrition workshop for the operators and staff of small hospitals, nursing homes and institutions was held in Helena.

It is planned to continue these workshops in other districts of the State. They are planned to give practical help on problems of modified diets, menu planning and the buying of food.

At the request of the Department of Public Institutions, the nutrition consultant visited all the State Institutions to survey the dietary facilities and make recommendations for better nutrition services.



The Public Health Nutritionist Shares Current Research Findings in Nutrition With Other Professional Workers.

AMBLYOPIA

During his biennium pre-school children have been screened for amblyopia (lazy-eye). The program is reported on page 61. There is interest in a glaucoma screening program and it is expected this will be planned for the near future.

MISSOULA SURVEY ON THE CHRONICALLY ILL AND AGED

The local health officer in the Missoula City-County Health Department was anxious to know whether or not the "Nursing Care in the Home" program was needed in Missoula. Volunteers, with assistance from a State Board of Health health educator, conducted a self-survey in the City and County of Missoula. The survey procedure is described further on page 61.

The purpose of this survey was (1) to determine the extent of disability due to chronic illness and aging; (2) to find what social problems exist in the 65 and over age group. These volunteers interviewed 1,728 persons aged 65 and over and 602 younger persons suffering from chronic illness, making a total of 2,330 questionnaires returned.



Photo Courtesy John Forssen, Missoulian

Among the 400 Volunteer Women Working in the Missoula Survey on Chronic Disease and Aging, Several Small Group Meetings Were Held at Which Plans Were Developed for the Survey Process.



Photo Courtesy John Forssen, Missoulian

Women Volunteers Queried the Residents of Over 9,000 Homes During the Missoula Survey on Chronic Disease and Aging.

Following a study of the findings, professional and citizen committees have made recommendations for meeting some of the most urgent needs. Already a committee has been formed to plan for initiating a program for "home-maker" services; it is expected that the utilization of resources already available such as "nursing care in the home" will be improved. Copies of the complete report are available, on request, from the Missoula City-County Health Department in the Wilma Building in Missoula.

This is the first time a county-wide survey of these problems has been made in Montana and its findings pinpoint not only the situation in the county studied but also suggested that the situation in other counties in the State are, no doubt, somewhat similar. Some of the survey findings are shown on the next three graphs.

PERCENT OF TOTAL MENTIONS

(MISSOULA RURAL AND URBAN COMBINED)

RANK	PROBLEM	
1.	HEALTH	28.4%
2.	TRANSPORTATION	18.1%
3.	FINANCIAL	15.8%
4.	LONELINESS	12.9%
5.	RECREATION	8.1%
6.	EMPLOYMENT	6.1%
7.	HOUSING	2.2%
8.	OTHER	.9%

Fig. 1

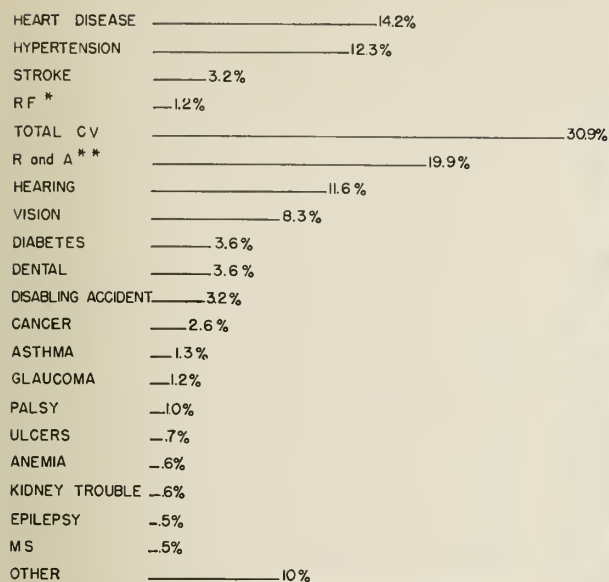
PERCENT OF TOTAL CASES

(MISSOULA RURAL AND URBAN COMBINED)

AGE GROUP	NO. OF CASES	
TOTAL	3109	100%
0-24	130	4.2%
25-44	149	4.8%
45-64	529	17%
65 and Over	2288	73.6%
Unspecified	13	0.4%

Fig. 2

MISSOULA URBAN AND RURAL COMBINED-ALL AGE GROUPS
(100% = 3109 ILLNESSES)



* RF (RHEUMATIC FEVER)

** R and A (RHEUMATISM AND ARTHRITIS)

Fig. 3



Panel Presents Information on Present Status of Hearing Conservation in Montana at the Conference Called at the Close of the Biennium.

PLAN FOR MENTAL RETARDATION

The State Board of Health, near the close of the Biennium, was appointed by the Governor as the Agency responsible to develop a plan for a coordinated mental retardation program for Montana.



Participants at the Hearing Conservation Conference Broke Into Small Groups to Discuss the Needs and to Make Recommendations to Meet the Needs.

HEARING CONSERVATION

A conference to study the needs and how they can be met on priority basis in a "Hearing Conservation Program" was held on June 30, 1964. This conference was sponsored by the State Board of Health and participants from official and voluntary health agencies, professional health associations and varied citizen groups interested in hearing conservation attended.

At this conference it was recommended that the State Board of Health initiate an over-all "Hearing Conservation Program" to include adults as well as children.

HEART DISEASE CONTROL

Diseases of the heart and vascular system are responsible for over half of the deaths and disability from all causes in the country and are the leading causes of death in Montana. The attack on the problem by the Montana State Board of Health is being directed by two U. S. Public Health Service physician-assignees to the Division of Disease Control, assisted by staff from the Divisions of Health Education and Public Health Nursing. In addition to the over-all heart disease control program, the State Board of Health has a Heart Diagnostic Center in Great Falls.

The heart program has continued to emphasize the need of both **service and education** in all programs during the biennium.

The effort in coronary disease and hypertension has been through professional education by means of the annual Nurses' Conference in cooperation with the Montana Heart Association and physician discussions. These programs will be continued.

A program to locate previously unknown cases of heart disease among children has been conducted in seven northeastern Montana counties. The heart sounds of eight thousand school children were recorded on tape which was screened by specialists in Helena and Great Falls. Those

with suspicious sounds were then re-checked in the schools by a team of State Board of Health physicians, and those with suspected heart disease were referred to their family physicians.

A research project to study the effect of exercise on middle-aged men was begun with the cooperation of the Helena YMCA and the Holter Research Foundation, and working with an advisory committee of local physicians. It is expected that some useful information will be obtained from this program to shed light on the problem of heart attacks in the male population.



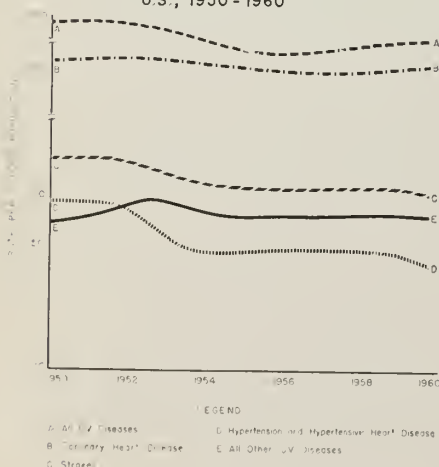
Nurse-Technician Records Heart Sounds in Mass Screening of School-Aged Children.



One of the Participants in the "Graduate Exercise Program" (G.E.P.) is Shown as His Blood Pressure Reading is Taken in the Study.

DEATH RATES FOR CARDIOVASCULAR DISEASES AND ITS MAJOR TYPES

MEN 45-64 YEARS OLD
U.S., 1950 - 1960



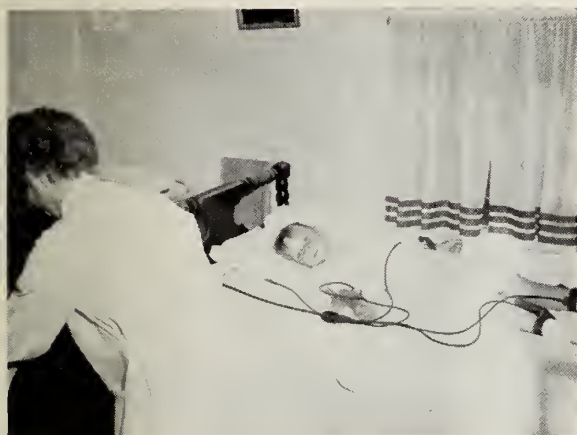
Needs

The challenge of the future in heart disease control comprises the so-called chronic diseases of hypertension, stroke, and coronary atherosclerosis. The accompanying chart on mortality data shows that coronary disease is increasing in our productive age groups. More programs are needed to emphasize the known effect of smoking and probable impact of diet and exercise in prevention of heart attacks. Although stroke deaths are decreasing, more rehabilitation programs for stroke victims are needed in Montana. There is also an obligation to maintain the present comprehensive programs in rheumatic and congenital heart disease.

RHEUMATIC FEVER AND HEART DIAGNOSTIC CENTER

The Montana Heart Diagnostic Center is an activity of the Division of Disease Control. It is located in the Montana Deaconess Hospital in Great Falls. During the past biennium it has continued widespread service to physicians from all parts of the State. In the calendar years 1962 and 1963, a total of 592 patients originating from 45 Montana counties were seen at the Heart Center. Of these, 313 were new patients and 279 were follow-up patients who had been referred in previous years. The table provides a rough breakdown of the diagnoses of these patients.

	Rhenmatic Fever		Chronic Rhenmatic Heart Disease	Congenital Heart Disease	Innocent Murmur	Other Heart Disease
	Acute	Inactive				
Calendar Year 1962	3	13	43	162	88	4
Calendar Year 1963	5	8	40	163	61	2
	—	—	—	—	—	—
BIENNIAL TOTAL	8	21	83	325	149	6



An Electrocardiogram is Being Taken on a Six-Year Old Child at the Rhenmatic Fever and Heart Diagnostic Center.



The Public Health Nurse is Shown as She Explains the Defect in a Child's Heart to the Child and Her Mother at the Rhenmatic Fever and Heart Diagnostic Center.

CANCER CONTROL

The establishment of tumor clinics at strategic areas in the State and a tumor registry in the State Board of Health was the goal of the full-time Cancer Control Director in the State Board of Health during his term of office in this biennium. This led to an increased interest in cancer control activities throughout the State.



Photo Courtesy: Missonlian
 Missoula Physicians Organized the Second Tumor Clinic in the State
 During the Biennium.

TUMOR CLINICS

The purpose of a tumor clinic is to provide consultation and to share knowledge among physicians in the diagnosis and treatment of cancer patients. The Mary E. Swift Tumor Clinic was established in Butte in 1947 and was the only clinic in the State until the spring of 1962 when one was established in Missoula.

A tumor registry is provided as a repository of records which contain pertinent information on diagnosis of cancer. This data is properly recorded in the registry and makes possible a systematic follow-up of patients for an annual report to physicians including an analysis of survival and the end results, as well as for special studies they may wish to do.

An exhibit showing the Mary E. Swift Tumor Clinic in Butte registry is pictured on page 70. A central registry is kept in the State Board of Health and information is put on IBM cards for retrieval of data as needed. The tumor clinic in Missoula, established by local physicians, is also cooperating in the tumor registry. With the help of private physicians it is hoped that all cancer patients in the State may be recorded in the tumor registry at the Board of Health so that this material may be useful to all physicians, and in turn, help patients.

CERVICAL CANCER DETECTION

During this biennium the director of the Cancer Control Program, with the help of physicians at the State Hospital at Warm Springs, completed a cervical cancer screening program among the women patients. During the first year of the biennium, eleven patients were found to need further investigation. This was done, and, where it was needed, surgery or other treatment was provided. This program was continued into the second year of the biennium when other screening procedures of all women patients at Montana State Hospital was done. Twelve women were in need of further investigation.

Because it is possible to prevent unnecessary deaths from cancer of the cervix, this has been the program focus in Cancer Control for this biennium. With the help of health educators in local counties, volunteers working in this program are attempting to motivate all women in their counties to assume responsibility for getting an examination in the office of their physician without delay. The results have been gratifying.

INDUSTRIAL HYGIENE

The program of the Industrial Hygiene section includes air pollution control and radiological health as well as the over-all industrial hygiene activities.

CHANGING NATURE OF INDUSTRY

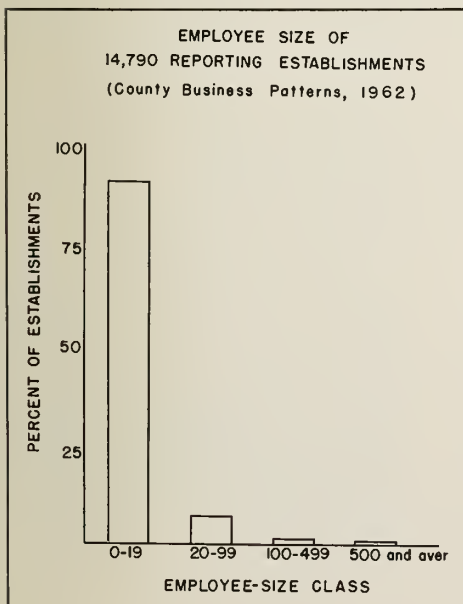
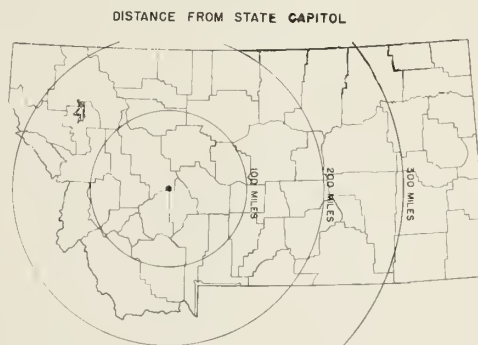
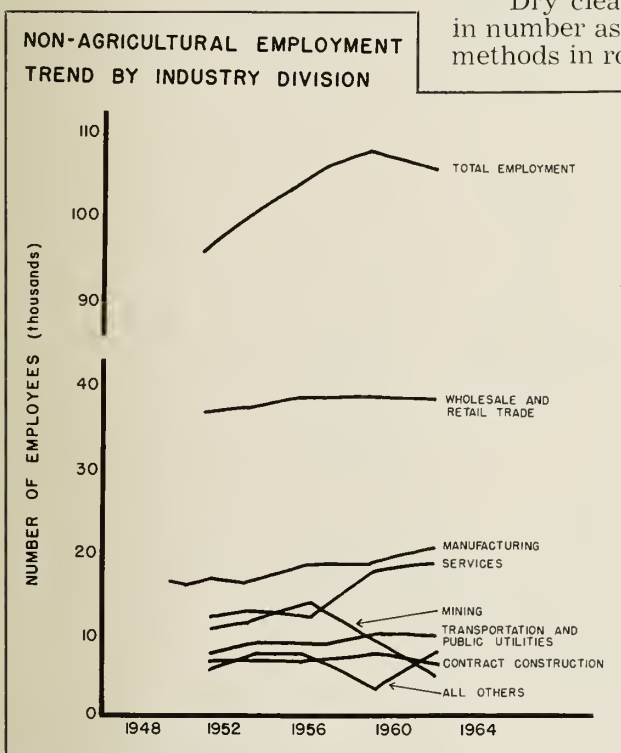
Thousands of new chemicals are coming on the market each year exposing those who work with these chemicals to various degrees of hazard—many of which have never been suitably evaluated in the past. In addition, new work methods and machines produce stresses in industrial environment not previously investigated which may produce a severe stress on the worker.

Automation does not necessarily mean the elimination of health hazards. Plastics are being used in large quantities and concentrations of styrene over 1,000 parts per million have been found in the breathing zones of several people. One hundred p.p.m. is the safe limit. Toluene di-isocyanate epoxy resins causing dermatitis are among other chemicals in wide use.

Although insecticides and other economic poisons are being used in increased tonnage each year, little is being done in the way of occupational health for agricultural workers in Montana, simply because there is not the time nor the personnel to spend on a program.

Dry cleaning and auto repair establishments increased significantly in number as well as in the creation of health hazards related to changing methods in road construction, metals fabrication and chemical processing. Noise, lead poisoning, metal fume fever, and heat stress are other types of industrial stresses to which the workers are exposed in Montana.

All of the cases mentioned and all other types of industrial hazards can be evaluated if it were possible to get all of these work places to determine, in a systematic and orderly fashion, if hazards exist; however, at this time a sufficiently frequent—sometimes it's not possible to get there at all—evaluation of work places is not possible.



PREDOMINANCE OF SMALL INDUSTRY

Over 81 percent of the industries in the State employ less than seven people and only eight employ 500 or more. Small industry is often unable to provide the medical and industrial hygiene help necessary. There is also a lack of awareness of its importance in the small industry that is not usually found in the larger places of employment where some medical participation and industrial hygiene programs exist.

Examples of Calendar Year Activities are as follows:

- 248 plants and mines studied
- 5,947 members of the industrial population were covered
- 525 samples were collected in the field and measured in the field
- 1,144 samples collected in the field and measured in the laboratory
- 170 samples collected in the field and measured in other laboratories
- 850 recommendations for improvement were made.

SPECIAL PROGRAMS

AIR POLLUTION

Severe air pollution exists in some Montana communities, and there is a strong potential for severe air pollution to develop in several other communities.

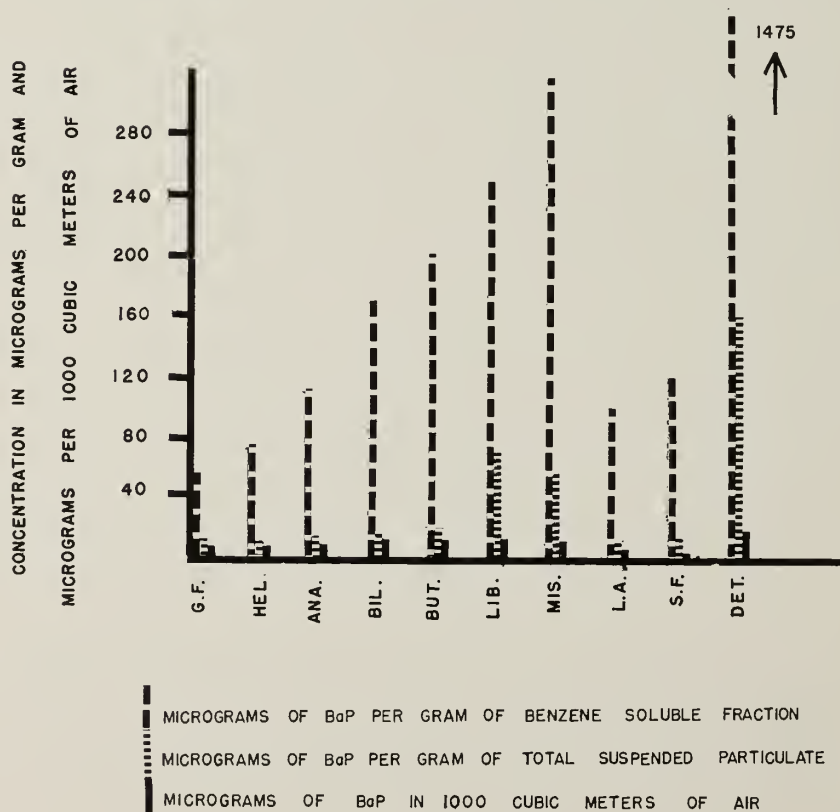
FLATHEAD VALLEY STUDY

A study of air pollution in the Flathead Valley, starting in June of 1963 and ending in June of 1964, indicates a serious potential for air pollution to develop in the Flathead Valley.

OTHER CITIES STUDIED

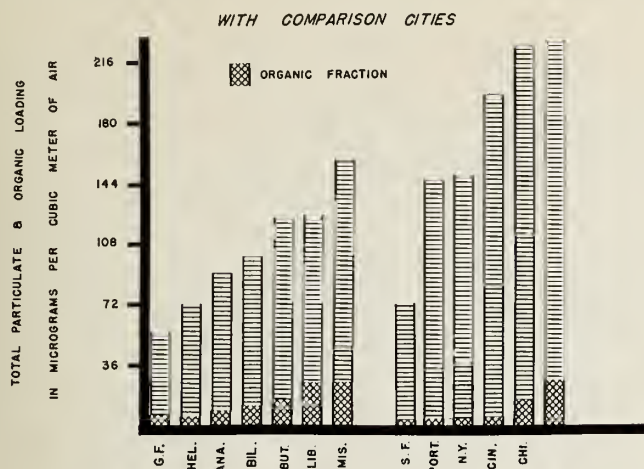
The Seven-City Survey performed by the State Board of Health which started in July of 1961 and ended in July of 1962, indicated severe air pollution existing in such Montana communities as Missoula and Libby, and, to a lesser but substantial degree, in Anaconda, Butte, Billings and Helena. Improvement in air quality in all communities is possible by elementary means available to industry and domestic sources. Some of the more fundamental elements of control have been on the market for over 50 years. The next three graphs show some of the findings of the Seven-City Survey.

*BENZO (a) PYRENE (BaP) CONTENT OF AIR,
7 MONTANA CITIES,
JULY—DECEMBER 1961, WITH COMPARISON CITIES*



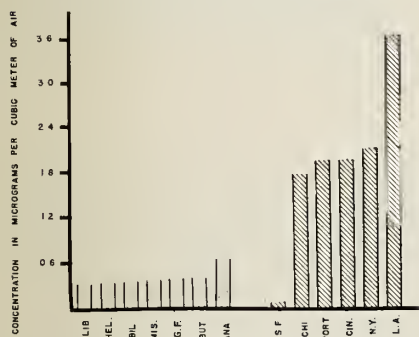
Benzo (a) Pyrene, a Known Carcinogen, Was Found in the Air of All Cities in the Ratio Shown. Some Montana Cities Show Much Higher Concentrations Than the Comparison Cities of Los Angeles and San Francisco. Only Detroit is Higher. The Benzo (a) Pyrene Was Determined in the Organic Fraction Extracted From the Total Particulate Reading.

AVERAGE TOTAL SUSPENDED PARTICULATE -IN- AIR AND ORGANIC FRACTION OF TOTAL
SUSPENDED PARTICULATE, 7 MONTANA CITIES, JUNE 1961 - JULY 1962,



The Total Suspended Particulate Concentrates and the Organic Fraction (Tar) for Montana Cities Showed High Values When Related to Large Cities Outside the State.

AVERAGE LEAD-IN-AIR CONTENT IN 7 MONTANA CITIES,
JUNE 1961 - JULY 1962, WITH COMPARISON CITIES



COMPLAINTS

Complaints concerning air pollution are becoming more and more frequent each year simply because air pollution is becoming more serious each year. Concern by the public about the effect that polluted air has on their health and economic well-being is legitimate and is clearly established by evidence of reputable agencies throughout the world.

Lead-in-Air is a Characteristic of All Communities Because of Automobiles Using Leaded Gasoline. Montana Values Are Lower Than Most of the Comparison Cities Outside the State.

AIR POLLUTANTS

An evaluation of the air sampling done indicates some communities have high concentration of arsenic, fluorides, and tars of known cancer producing properties. All Montana communities have some of these elements in their air but a few communities are especially high in one or more of these constituents.

PROGRAM PROBLEMS

The air pollution program being carried on by the State Board of Health since the end of the Seven-City Study in 1962 has been done with no money specifically allocated for this purpose. Until funds are made available, it cannot be expected that much realistic air pollution control work can be done.



A Heavy Dust Plume From an Asphalt Plant is Shown.



Smoke Emerging From an Industry.



Wind Carries a Smoke Plume Away From an Industry.



An Immersion Layer is Shown by the Smoke Levels Pictured Above.



Burning Car Bodies for Scrap Purposes is Another Source of Air Pollution.

LAWS

It has been adequately demonstrated in Montana that without sufficient legal power to enter the premises of offending air pollution sources, to study plants and operations of new pollution sources, and to require the installation of suitable air cleaning devices, that air pollution will not be reduced or controlled to any significant degree.

RADIOLOGICAL HEALTH



Measuring Scatter Radiation
From X-ray Equipment.

With the employment of a full-time radiological health specialist in June 1963, an active program of radiation control was started in the State.

A radiation survey of all X-ray machines in Montana is well under way. Dental X-ray machines and those used by veterinarians had previously been done. Follow-up on these is continuing. The survey to reduce the radiation consists of checking the following: (1) the proper use of cones and/or collimators; (2) the proper amounts of aluminum filtration; (3) if shielding is available and used; (4) measurement of scatter and secondary radiation; (5) safety features of the X-ray machines, and (6) safe procedures and techniques for operation of the machine.

Sources of radium in use are being checked for leakage. Leaking sources present hazards not only to the operators but may be dangerous for patients as well.

One radiation air surveillance station is in operation in Montana. This is adequate as long as the test-ban stays in effect; however, seven additional stations are planned for the future to be operated on a random sampling schedule. At present field measurements can be made at State level and the laboratory measurements are made in the Public Health Service Laboratory at Rockville, Maryland.

One milk sampling station is in operation in the State. The milk is sent to the PHS Laboratory in Las Vegas for analysis for Sr^{90} , Sr^{90} , CS^{137} , and I^{131} .

Because there is an increasing amount of radioactive material in the State, a plan is under development to cope with any emergencies that might develop from an accident involving radio-active materials.

Legislation in Montana is needed to permit State control of radioactive materials, and to permit the governor to make an agreement with the AEC (Atomic Energy Commission) for the State to take over the regulator functions currently managed by the AEC.

The chief function of the chemistry laboratory is to provide services to the various public health programs.

Air samples were collected in seven cities in the State and the results of these tests will be used as a base line for air quality in the future. Studies are continuing in some other areas of the State.

Determination of in-plant air samples collected by the Industrial Hygiene Engineer are of vital importance.

Testing of water for synthetic detergents from household wastes has been started.

Routine analyses have continued for (1) mineral constituents of ground water and surface water courses, (2) fluoride in drinking water in towns and cities which are adding fluorides to partially prevent tooth decay, (3) analysis for the existence of such toxic materials as arsenic, lead cyanide, copper, and phenols in water samples and (4) analysis for sodium content in individual water supplies upon a physician's request.

The chemistry laboratory conducts chemical analyses of food and drugs for compliance with accepted standards and to establish the purity or adulteration of food products.

Chemical analyses of urine and blood for alcohol and other toxic materials for law enforcement officials, hospitals, physicians, and county attorneys are also done.

The radiological testing parallels very closely that for the previous biennium.

CHEMISTRY LABORATORY SERVICES

ACTIVITIES



City Water Samples Are Given
Laboratory Numbers Before
Chemical Analysis Begins.

COMMUNICABLE DISEASE

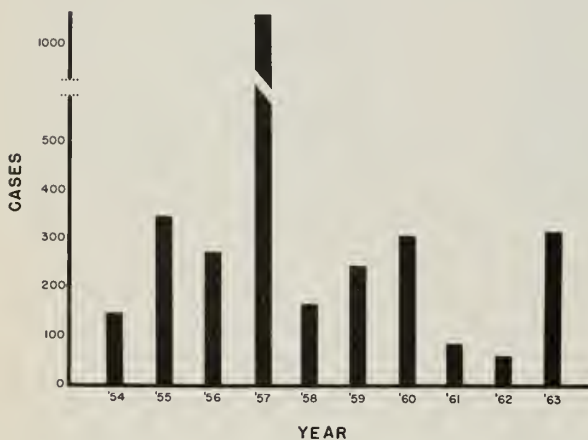
ACUTE COMMUNICABLE DISEASE

Poliomyelitis immunization with oral polio vaccine was done to effectively control this disease. Medical societies sponsored the programs in local areas and population percentages immunized in each county varied up to 93.6 percent of the total population in Lewis and Clark County.

Reported pertussis cases—whooping cough—have increased alarmingly. The accompanying graph indicates a lack of adequate protection by immunization for this disease in Montana and is an index of low immunization level for diphtheria and tetanus as well.

Infectious hepatitis cases were reported almost state-wide with certain areas epidemic. Virus diseases are being reported more frequently, probably because of better diagnostic methods available.

REPORTED CASES OF PERTUSSIS (WHOOPING COUGH)
MONTANA 1954-1963



The Montana State Board of Health has joined with the rest of the States in a salmonella (food poisoning) surveillance program. All cases are typed and traced to the source of possible contamination.

This is the eleventh year there have been no smallpox cases reported in Montana.

There were no diphtheria cases in the calendar year 1963 and only six in 1962; there was one typhoid case in 1963; and ten in 1962.

There have been no major influenza epidemics during the biennium. Some severe influenza cases did occur during 1963. Laboratory reports show that the possible strain of virus causing these in Montana differs from the A₂ virus found in 1957. It has been given the designation of A₂/Montana/1/64.

A survey of immunization status for diphtheria, pertussis, tetanus, polio, and smallpox among all age groups and promotion of adequate immunization where needed is planned to begin early in the next year.

Constant vigilance on communicable disease occurrence is needed to prevent epidemics.

TUBERCULOSIS CONTROL

The goal to bring about the eradication of tuberculosis is hampered by the disease itself. (1) Tuberculosis is a very stubborn disease. Today many people are living in our State who have been infected with tuberculosis but have not had clinical disease. Their life expectancy, in general, is much longer than it used to be; however, each year some of these break down with tuberculosis and, in addition, some who have had tuberculosis and have recovered have relapses of the disease. These breakdowns and relapses are the means by which tuberculosis is perpetuated.

(2) Tuberculosis, even as an active disease, does not usually cause noticeable symptoms until it is quite advanced. This is another reason why it is difficult to control and eradicate.

Probably the most important tool in tuberculosis control is chemotherapy. Most patients, today, who have tuberculosis are treated outside of the hospital.

Public health nursing still plays a very important part in the control of tuberculosis in each community.

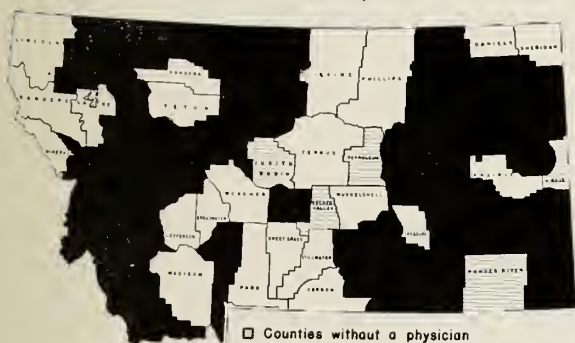
Tuberculosis case finding, particularly with skin testing programs (identified as an important tool), is needed in high-risk groups. Investigation of contacts of the active tuberculosis cases to find the source of this disease still must be done by the public health nurse.

Public Health Nursing in Tuberculosis Control in Montana 1962 and 1963

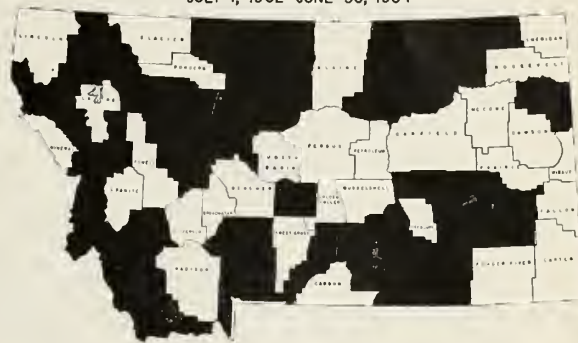
	1962	Total	Office Visits	Home Visits	Admission to Service
Diagnosed Tuberculosis		949	178	771	340
Contacts and Suspects.....		1,707	302	1,405	915
1963					
Diagnosed Tuberculosis		793	146	647	246
Contacts and Suspects.....		1,614	266	1,348	930

Tuberculosis still has a spotty distribution geographically in Montana. The effectiveness of tuberculosis control can no longer be measured by the rapidly declining death rate from the disease. Rather, a measure more commonly used is a number of new active cases reported each year. During 1962 there were 118 active cases of tuberculosis recorded for the first time in Montana. In 1963, 109 active cases were reported. As in the United States as a whole, about 56 percent of these cases have been in persons over 45 years of age. However, it is important to note that the number of cases in persons under 25, the ones generally considered to be most readily prevented, constitute about 28½ percent of the total cases in the State for the biennium. From these figures it is evident that it is important that there be increased public health activities in tuberculosis control in Montana.

PROFESSIONAL MEDICAL EDUCATION
IN VENEREAL DISEASE
JULY 1, 1962-JUNE 30, 1964



SCHOOL AND NON-PROFESSIONAL COMMUNITY
EDUCATION IN VENEREAL DISEASE
JULY 1, 1962-JUNE 30, 1964



VENEREAL DISEASE

There has been a dramatic increase in infectious syphilis in Montana during the past biennium from a low of only twelve cases of primary and secondary syphilis reported during the previous biennium to 40 cases which were reported in the State from July 1, 1962 to July 1, 1964.

Increases in professional education of all persons working in venereal disease control with the help of physicians in private practice have shown results in venereal disease control in Montana.

A program of lay education for groups of all ages in an attempt to teach them the facts of syphilis and to make them aware of the need for early treatment, and the seriousness of the disease if untreated, has been carried out.

Increased laboratory activity with the addition of the latest tests for the diagnosis of syphilis is available.

In March 1964, an Advisory Committee composed of professional people on Venereal Disease was formed. The Committee recommended wide-spread changes in the venereal disease control law. It advised strengthening the reporting provision in the law, eliminating obsolete sections, bringing all parts of the law under one title and providing for regulations to implement the law. It was also suggested that reporting of all positive laboratory reports done in private laboratories should be sent to the venereal disease control section of the State Board of Health.

The committee also recommended that funds for the examination and treatment of gonorrhea contacts be restored, that an additional field worker be employed to cope with the problem, and that private physicians be encouraged to participate further in the total control problem.

Local public health nurses and other local public health personnel play a major role in the control of gonorrhea in the State.

Reported Cases of Venereal Disease

Calendar Year	Primary and Secondary Syphilis	Total Syphilis	Gonorrhea
1963	19	205	592
1962	8	203	447
1961	3	245	473

Public Health Nursing Visits in V. D. Control

Calendar Year	Total Visits	Office	Home	Adm. to Service
1962	490	216	274	306
1963	661	255	406	385

ENVIRONMENTAL SANITATION

Responsibilities in Environmental Sanitation include all aspects of sanitation as they relate to the person in his environment for which the State Board of Health has legal responsibility. The program is designed to protect the health of all who reside or travel within the State.

The program encompasses (1) General sanitation including food and drug control; (2) Municipal water supply supervision; (3) Water pollution abatement including supervision of waste treatment plans, and (4) School plan review.

Highlights

Montana's Water Pollution Abatement program is outstanding. Of the State's 137 sewerred communities 105 have satisfactory sewage treatment; 29 need replacement or additions and three are discharging raw sewage, of which only one has not prepared plans and made the money available for a treatment facility.

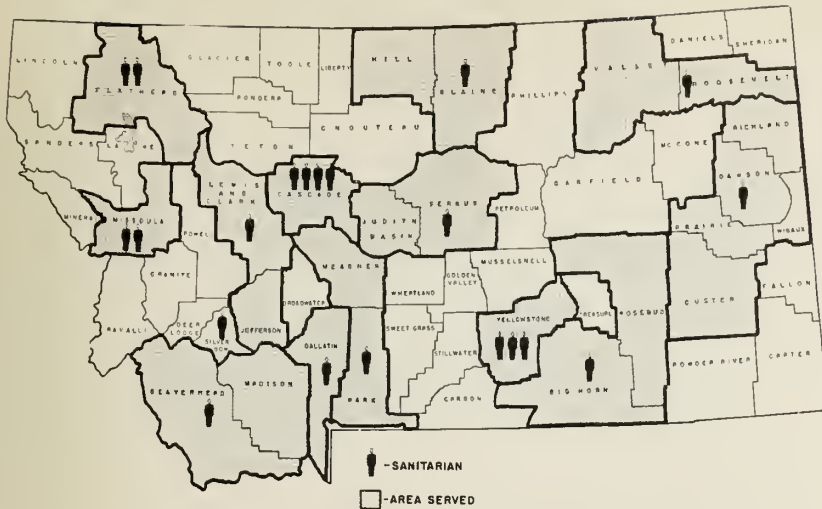
Six municipal supplies were flooded by the June 8, 1964 flood. Emergency services were required to return the supplies to proper operating condition.

A branch office at Billings was established to study Yellowstone River pollution problems.

Needs

Legislation in several areas is needed in order to carry out an adequate program in environmental sanitation. Some of the legislative needs are:

- Requiring only one license rather than as many as four for food processors and those serving food.
- Clarification of the Board's control of ground water that is to be used by humans for drinking.
- Overall legislation covering hotels, motels, tourist courts, trailer courts and campgrounds.
- Clarification of the Board's responsibility in relation to swimming pools.
- Establish some means to control disposal of garbage.
- Revision of school construction laws that will permit up-dating the regulations.
- Study effects of agriculture wastes upon streams including silt, pesticides and fertilizers.
- Complete coverage of the State with services of local sanitarians.
- Staff adequate to work on the problems created by the use of pesticides.
- Upgrading the quantity and quality of municipal water supplies should be explored.



In June 1964 There Were 21 Sanitarians Providing Services to 69% of the State's Population. These Services Were Given in 24 or 44% of the Montana Counties.

GENERAL SANITATION

General sanitation responsibilities include food and drink establishments, meat markets, locker plants, food manufacturing establishments, food and drug control, motels, tourist courts, rodent and insect control, camp sanitation, economic poison control, mattress and over-stuffed furniture labeling, and garbage disposal.

These responsibilities are shared by the Board's staff, local health officers and sanitarians. In Montana 44% of the counties covering 69% of the population are served by 21 sanitarians. These sanitarians are guided by State Board of Health sanitarians who attempt to develop uniform inspection, records and enforcement.

All the sanitarians working in the State are registered with the legally constituted Sanitarian Registration Council, which is appointed by the State Board of Health.

There were 14,900 licenses issued during the biennium to food processors. Except for the locker plant license (ten dollars), a two dollar charge is made for each individual license. In some cases an operator must purchase three or four licenses. If legislation requiring only a single license were passed, more efficient handling would result and less confusion for the operators. The present two dollar charge is not adequate to cover the cost of administering the licensing program.

Another type of license is needed to cover hotels, motels and trailer courts. At the present time licensing for motels and trailer courts is authorized under an interpretation of the 1927 tourist court law by the Attorney General.

RESTAURANT SURVEYS AND SANITATION TRAINING

During the biennium, the Board's staff conducted restaurant surveys in six communities and in-service training sessions for food service personnel in fifteen different areas. These training sessions included 42 sessions and reached 1,018 persons. Several meetings were held for Home Demonstration Councils in local areas throughout the State.

In-service training in basic sciences and in day-to-day operations for local sanitarians were provided by sponsoring 5 training sessions.



Among the Many Training Sessions for Food Service Personnel Conducted During the Biennium, is the One Pictured Above for Managers in Broadwater, Lewis and Clark and Jefferson Counties.

FOOD AND DRUG

The Food and Drug Laws controlling adulteration and misbranding food and drugs in Montana are enforced in cooperation with the Federal Food and Drug Administration. The FDA has deputized the State staff working in the field and local sanitarians to represent them during emergencies.

During the biennium the following work has been carried out:

- Field and laboratory testing of ground meats including hamburger to determine adulteration with fat and preservatives.
- Potatoes from one grower with excessive amounts of the insecticide heptachlorepoide making them unfit for human or animal consumption. These potatoes were diverted to seed use.
- Labels on foods are reviewed to determine their accuracy and to determine whether or not they may be misleading.

Another economic fraud is the dyeing of potatoes which gives old potatoes the appearance of new potatoes. Contaminated wheat from Montana has been embargoed by the Federal Food and Drug Administration in quantities as large as 20 carloads at a time. Causes of this wheat contamination have been determined as:

- (1) Mixing small quantities of seed wheat which has been treated with a mercury compound, with the wheat to be used for milling.
- (2) Rodent contamination occurs when wheat is stored under insanitary conditions. The problem can be corrected with improved sanitation at the storage facilities.

PESTICIDES

The State Board of Health is charged with the registration of pesticide labels within the State, however, it can accept the registration of the U. S. Department of Agriculture.

There are approximately 12,000 different commercially available pesticide formulations on the market. Pesticides are sometimes combined together and in this case may become much more potent. Pesticides are also being mixed with fertilizers.

To learn of Montana's problem concerning hazards from pesticides and the protection of the public from their misuse, the State Board of Health called a meeting with representatives from seventeen different agencies to determine pesticide use. It was agreed that a more active program is needed and a common laboratory is desirable for all State agencies using or controlling these products.

GARBAGE DISPOSAL

Guidance is given municipalities in regard to the proper disposal of garbage. The landfill method of disposal has proven the most satisfactory. The improper disposal of garbage creates a health hazard by providing breeding places for insects and rats. Rats, which carry plague, are continuing to spread within the State. Three cases of rat bites of humans have recently occurred in Montana.

WATER SUPPLIES

Water is a prime resource in Montana and the State Board of Health is concerned with both the bacteriological and chemical quality of water used for drinking. Within the State there are 179 public water supplies, all of which are inspected each year and routinely sampled at least once per month. Of this number 140 meet all the bacteriological requirements of the U. S. Public Health Service drinking water standards. Each water source is chemically tested at least once every five years.

The population of the 140 communities meeting the standards is 458,000. The population in the 39 communities not meeting the standards



Water is Pumped From Tiber Reservoir to the Water Storage Reservoir Where it is Stored and Disinfected Before Distribution to the Town of Chester.

is 21,000. In all cases where the water is not satisfactory, the community and its citizens have been notified innumerable times and eating and drinking establishments that serve the public have been notified individually.

Wastes from septic tanks and cesspools are giving trouble in some small communities where individual water supplies are relied upon. This has stimulated planning and in some instances the completion of community water facilities in some smaller communities.

While the State Board of Health is charged with the general oversight of public water supplies, the law is directed primarily at surface systems. The law has been interpreted to include underground sources of supply when used for household or domestic purposes, yet the laws do not specifically mention wells or ground water supplies in the general sections. Pollution laws are also directed primarily at surface waters and not at underground waters.

The laws relating to municipal water supplies are difficult to enforce. Occasionally situations have been found where changes have been made or new construction has been installed without the required State Board of Health approval. It is recommended that this legislation be clarified.

**Water Samples Tested
July 1, 1962 to June 30, 1964**

	Bacteriological	Chemical	Total
Public Water Supplies.....	15,073	543	15,616
Private Water Supplies.....	3,010	472	3,482
School Water Supplies.....	392	—	392
Tourist Court Water Supplies.....	89	—	89
U. S. Govt. Water Supplies.....	1,311	—	1,311
Stream Pollution Studies.....	462	700	1,162
Miscellaneous Sources	71	19	90
TOTALS	20,408	1,734	22,142

**Engineering Inspections Made by Environmental Sanitation Division
July 1, 1962 to June 30, 1964**

Inspections of Municipal Supplies.....	392
Inspections of Private Water Supplies for Individuals.....	11
Inspections of Sewage Disposal Systems (Public).....	312
Stream Pollution Studies.....	75
Inspections of Swimming Pools.....	52
Miscellaneous Inspections	47
TOTAL	889

Under Montana law, the State Board of Health collects from the various water departments fees for services rendered by the Board which go into the State's General Fund. The fees range from \$10.00 to \$450.00 per year depending upon the type and size of system. The amounts collected are shown on page 71.

The director of the Division of Environmental Sanitation has been named chairman of the Water Task Group of the Office of Emergency Planning. This group is responsible for all water supplies within the State during an emergency. It is anticipated that the activities in this field will increase.

WATER SCHOOL

The school for Water and Sewage Plant Operators and Managers provides in-service training for from 60-75 persons annually.

SWIMMING POOLS

During this biennium, 19 plans for new and remodeling of existing pools were received. The plans are reviewed and approved by the State Board of Health before construction is started. There are many old swimming pools that have been the source of infections. There has been a gradual up-grading, however there is still much need for improvement and a good law would be helpful.

WATER POLLUTION ABATEMENT

Montana's program in water pollution abatement has been outstanding. It has been accomplished without Federal Government hearings or orders, and Board of Health orders have been issued to only five communities, stimulating correction without court action. There are 137 sewer municipalities in the State, of this number 105 have satisfactory sewage treatment facilities; 29, mostly small communities, need replacements or additions to their treatment facilities and 3 are discharging raw sewage of which but 1 has not plans underway and finances available.



The Missoula Sewage Treating Plant Was Put Into Operation in the Fall of 1963.

During the biennium, six new sewer systems together with sewage treatment facilities were constructed or are now under construction. They are Augusta, Belt, Froid, Joplin, Sweetgrass and Twin Bridges. New sewage treatment facilities were completed or are under construction at Belgrade, Missoula, Philipsburg, Poplar, Ronan and Stanford. Major improvements were made to treatment systems at Billings and Laurel. The Anaconda Company at Bonner and the St. Regis Paper Company (lumber and plywood mill) at Libby have also recently provided sewage treatment facilities.

Since 1956, the Federal government has assisted 60 Montana communities by providing 30% of the cost for sewage treatment facilities. Communities have received a total of \$3,300,000 in Federal funds and have built treatment facilities valued at over \$11,000,000.00.

Industrial waste treatment in Montana has continued to improve. The greatest improvement during the biennium has been to the Yellowstone River in the vicinity of Billings. Notable improvements have been made by the Great Falls Meat Company, Daly Meat Company, Missoula; and Continental Oil Company, Billings.

ACTIVITIES IN POLLUTION CONTROL

The activities of the staff involved in water pollution abatement are as follows:

- Promotes construction of municipal sewage facilities, reviews plans and checks operation to insure effective treatment.
- Negotiates with industry to improve waste treatment and discharge facilities.

- Inspects existing facilities and monitors waste of all types of industry.
- Coordinates the activities of local, State and Federal agencies involved in pollution.
- Conducts extensive investigations and sponsors research in water pollution control.
- Participates in long-range water resources development and manpower planning and participates in public education.
- Investigates complaints of damage caused by pollution and provides technical services and guidance to communities, industries and individuals.

The Board's Aquatic Biologist is Shown Running a Test on Stream Water to Determine the Presence of Insecticides.



PROBLEMS IN WATER POLLUTION CONTROL

Water pollution problems are primarily with new industry. Some method should be devised so that new industries would notify the State Board of Health when they anticipate locating in the State.

Difficulty is encountered with small mining operations. These are generally small washing and milling operations which develop and the Board does not learn of them until a problem is reported. Another problem is the multiplicity of small developments within the State.

In industry's attempt to control air pollution, the gases and solids in the stacks are washed and in many cases there is a desire to discharge these wastes into a stream. This dual pollution problem must be coordinated to make certain that one problem is not removed at the expense of another.

ROLE OF FEDERAL GOVERNMENT ASSISTANCE

It is believed that the best contribution the Federal Government can make is to offer technical assistance when requested and provide laboratory services, particularly when exotic and expensive instrumentation requiring special manpower training is needed. In Montana, less than ten cents per capita per year is spent on water pollution, and of this amount approximately half is supplied by the Federal Government.

BRANCH OFFICE

A branch office was established in Billings to make it possible to monitor and study more closely the wastes going into the Yellowstone River, and making it possible to provide better service to this area at less cost. A similar office is needed for western Montana.

Reports of all studies which cover water pollution abatement have been issued.

WATER POLLUTION CONTROL COUNCIL

All streams in Montana have been classified under the direction of the State Water Pollution Control Council and the State has adopted stream pollution control criteria.

The Council has had five meetings during the biennium. Under Montana Law the State Board of Health enforces the pollution law and regulations of the Council.



Attending a Meeting of the Water Pollution Council (from L to R) Are: John Hazen, Butte; John S. Anderson, M.D., Helena; C. W. Brinck, Helena; Winton Wedemeyer, Fortine, Chairman; George Holton, Helena; Everett Darlington, Helena, Vice-Chairman. R. D. Flightner, Darby, and Claude Eyer, Glendive, Are Other Members but Were not Present When the Picture Was Taken.

SANITARY LICENSEES

Sanitary licensees are licensed by the Board to clean out septic tanks, cesspools and privies. In addition to the license, these persons must obtain a permit from the local health officer before each unit is cleaned. In some areas little is done by the local public health staff and this causes problems.

During the fiscal year 1963, fifty-eight were licensed and in 1964, sixty-four licenses were issued.

WATER AND SEWAGE CONTROL IN SUB-DIVISIONS

The 1961 law requiring Board approval for water and sewage facilities in subdivisions and revised in 1963 is doing much to alleviate the problem of improper water supplies in newer subdivisions.

There have been 68 subdivision plans received during the biennium and as of June 30, 1964, 56 of these have been approved.

The law requires that the subdivider provide to the Board information concerning the water supply and sewage disposal proposed for the area. This legislation protects persons buying in subdivisions. Generally acceptance of this law has been very good.

There are, however, many older subdivisions where ground water has caused outbreaks of virus infections, especially infectious hepatitis.

FLOOD IN 1964

The flood beginning on June 8, 1964, created many serious public health hazards on both sides of the Continental Divide. Water supplies, both municipal and private, were affected; food was contaminated; many dead animals were left; and insect control became a very pressing problem.

Municipal supplies were returned to service as soon as water levels dropped. All superintendents in charge of public water systems were contacted and assistance was given by telephone as well as by actual field visits. Many hundreds of individual water supplies had to be disinfected and sampled. All these samples were processed through the laboratory.

Directions and guidance were given through all media including radio and press to flood victims as to how they could decontaminate food and treat small emergency water supplies for drinking purposes.

At the Board's request Federal Food and Drug Administration sent in two men to check food supplies which may have been flooded in commercial establishments.

Removal of dead animals became a tremendous problem with so many of them spread over such a vast area, including lakes and streams.

Municipal sewer systems were filled with sand and silt at Choteau and parts of Great Falls. Sewage treatment facilities were damaged at Fort Benton and the State Training School at Boulder.

The entire staff was busy trying to keep up with the problems as they developed.

There were no food or water-borne illnesses that were traced to the flood.



Photo Courtesy: Page & Werner Associates, Architects, Great Falls.

Charles M. Russell, Senior High School in Great Falls, Currently Under Construction.

SCHOOL PLANS

The regulation relating to approval by the State Board of Health of all school plans for new construction or remodeling has again been revised following recommendations of the committee appointed by the late Governor Nutter. In order to bring about all the recommendations, the law will have to be changed. Suggested legislative changes to meet this need are prepared and ready for introduction.

The building consultant engineer reviewed 129 plans for all new schools and for the remodeling of existing schools.



The Board's Staff Members Review Plans for a Proposed Nursing Home.

RELATED ACTIVITIES

The State Board of Health is represented on both the State Plumbing Board and the Water Well Driller's Licensing Board. These boards have been established to protect the health of the public. There are approximately 370 master plumbers and 815 journeyman plumbers and 135 well drillers currently licensed.

HOSPITAL FACILITIES

Highlights

During the last 17 years 55 Hospitals and Medical Facilities have been granted Federal funds on a 40% Federal to 60% local matching basis.

The annual revision of the State Plan continued.

Federal allotments during the biennium amounted to \$2,291,065; while transfer funds from Wyoming amounted to \$231,685.37.

Nine projects shown in the last Biennial Report were completed and officially closed.

There were eleven active projects in various stages of construction or completion at the close of the biennium.

Nursing Home and Homes for the Aged Construction, other than Hill-Burton, reached its peak during the biennium.

During the biennium there were 1,447 new Nursing Home beds either completed, under construction or with drawings and specifications in preparation.

This biennium shows a net gain of 932 beds in nursing homes, personal care and boarding homes over the last biennium.

With the completion of the nursing home beds under construction, the nursing home beds for the greater part of the State will be met.

The licensing program for hospitals, nursing homes and homes for the aged have been transferred to the Division of Environmental Sanitation, thus concentrating all licenses issued by the State Board of Health in one place.

Applications for financial assistance in the construction of hospitals and medical facilities continue to exceed available funds.

Needs

Montana continues to transfer to other States Federal funds for the construction of Rehabilitation Facilities since no eligible applications have been received. Interest in this category is needed to utilize these funds within the State.

Legislation is needed to handle the construction of facilities in the Mental Health and Mental Retardation Programs.

Conclusion of the Court case against the State Board of Health is needed. This refers to the Board's authority in enforcing standards in Homes for the Aged, particularly as they relate to the requirement of sprinkler systems.

The Construction Program

The close of the biennium marks 17 years of operation of the Federal Hospitals and Medical Facilities Construction Act, commonly known as the Hill-Burton Act. During this period Federal aid has been granted to 55 projects throughout the State and has provided hospitals and health facilities in communities that would not otherwise be able to construct their facilities.

Montana also received Federal funds for the construction of Indian health facilities in conjunction with community hospitals in Reservation areas and, under the Public Works Acceleration Act, for the construction of hospitals and medical facilities in depressed areas.

While Federal aid has provided many communities with the additional funds needed to construct hospitals and medical facilities, by far the greatest share of the costs has come directly from the communities themselves. The program has:

1. Spurred the building of health facilities in areas formerly without them,
2. Helped to replace hazardous and obsolete plants,
3. Encouraged the expansion of some which were overcrowded, and,
4. Improved the central and ancillary services of others.

The State Plan for Hospital and Medical Facilities Construction is revised annually and adopted by the Board on the advice of the Advisory Hospital Council, following a public hearing. The Plan contains an inventory of existing beds and health facilities to determine the existing beds by category and classifies them as to acceptability. The Plan also estimates the total number of beds and facilities needed for each category, on the basis of a population ratio, or the actual utilization of beds as set by Federal regulations, and establishes a priority system based on unmet bed needs.

Applications for financial assistance from eligible sponsors must be in accordance with the State Plan and are processed on the basis of priority to areas having the greatest unmet needs for facilities or services, and the availability of Federal funds allocated to Montana. Federal funds are granted on a matching basis of 40% of the total eligible project costs.

FEDERAL ALLOTMENTS

Federal allotments received by Montana during the biennium were:

	1963	1964	Total
Hill-Burton, Hospital Construction	\$ 587,692	\$ 639,078	\$1,226,770
Hill-Burton, Medical Facilities	350,000	350,000	700,000
SUB-TOTAL	\$ 937,692	\$ 989,078	\$1,926,770
Accelerated Public Works		364,295	364,295
TOTAL	\$ 937,692	\$1,353,373	\$2,291,065

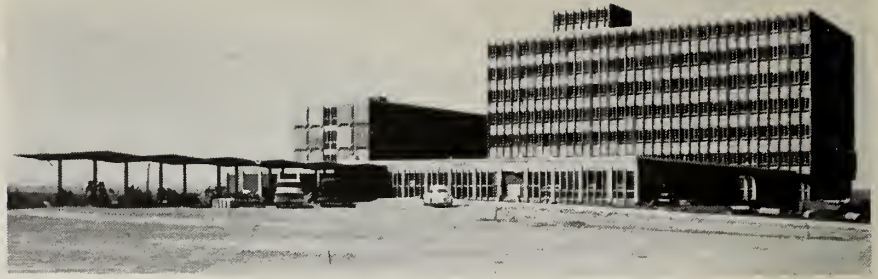
In addition to the above, Montana received transfers of Hill-Burton funds from the State of Wyoming for use in the construction of the Nurses School and Residence at the Montana Deaconess Hospital at Great Falls. These consisted of Fiscal year 1962 and 1963 funds in the amounts of \$110,321.95 and \$121,363.42 respectively for a total of \$231,685.37. In accepting the transfers assurances were given that student nurses from the State of Wyoming will be enrolled in the School of Nursing under the same terms and conditions as Montana students.

PROJECTS ACTIVE DURING THE CURRENT BIENNIUM

There were eleven active projects in various stages of construction or completion at the close of the biennium. Summarized information for each is shown in the table on page 49. Of these, two projects were completed, requiring only the final inspections and audit preparatory to making the final installment payments. These were the Columbus Hospital, Great Falls, and the Ruby Valley Hospital at Sheridan. The Hotel Dieu (St. Joseph Hospital), Polson; Poplar Community Hospital and Nursing Home, Poplar; Holy Family Hospital and Nursing Home, St. Ignatius and the Faith Lutheran Home at Wolf Point were officially closed.

Projects placed under construction during the report period were the Montana Deaconess Hospital, Great Falls; Ruby Valley Hospital, Sheridan; and the Powell County Memorial Hospital, Deer Lodge.

Photo Courtesy: DeMier Studio
Montana Deaconess Hospital, Great Falls.



The Montana Deaconess Hospital is the largest single project undertaken since the inception of the hospital construction program. The total estimated cost of this project is \$5,065,605 and includes the construction of a complete hospital and School of Nursing at a new location and the remodeling of the newest portion of the old hospital for nursing home use.

The following projects were scheduled for construction: St. John's Hospital, Helena, a 10-bed hospital addition and a 25-bed nursing home addition including some ancillary services; a 24-bed nursing home addition to the Fallon County Hospital, Baker; the Sweet Grass County Home for the Aged, Big Timber, and a 16-bed nursing home addition to the Roundup Memorial Hospital, Roundup.

Two Montana hospitals received Federal funds under the Public Works Acceleration Act (Public Law 87-658). These were the St. James Community Hospital, Butte; and the Kalispell General Hospital at Kalispell. The rate of Federal participation was 50% and 58% respectively of eligible project costs. These percentages were determined by the Area Redevelopment Administration of the U. S. Department of Commerce, based on unemployment in specified areas. These projects were handled in the same manner as Hill-Burton projects, the only difference being the source of Federal funds.

APPLICATIONS EXCEED AVAILABLE FUNDS

Applications for financial assistance in the construction of hospitals and medical facilities continued to exceed available funds. All Federal monies allocated to Montana were utilized with the exception of Rehabilitation Facilities funds. These funds are not transferable to other categories and could not be used since no eligible applications were received. The funds may, however, be transferred to another State provided that the resulting facilities will benefit Montana residents.

REHABILITATION FUNDS UNUSEABLE

Montana received \$50,000 each year in this category. The 1962 allotment was transferred to the State of Colorado for use in the Rehabilitation Facility at the University of Colorado Medical Center, Denver, Colorado. The 1963 allotment was transferred to the State of Washington for use in the construction of the Tacoma Goodwill Industries Rehabilitation Center at Tacoma, Washington.

The Colorado disciplines gave assurance that consideration will be given to Montana patients on the same basis as Colorado patients and provide student training in many rehabilitation areas.

The Tacoma Goodwill Industries Rehabilitation Center at Tacoma, Washington, stated that they are looking forward to increased Montana referrals in the years ahead as a closer and more effective working relationship is developed.

Payments made to sponsors are on the basis of completed work, services rendered and equipment delivered at the site at the time inspections are made for payments. Due to the method of scheduling projects, the payments made may be from current and/or previous fiscal year

allotments. Monies allocated to the State must be encumbered on projects for which construction contracts have been awarded within a two-year period.

PAYMENTS MADE DURING BIENNIUM

During the biennium 22 payments were made on 12 Hill-Burton projects in the amount of \$1,490,994.19 and three payments were made in the amount of \$154,036 on two projects under the Accelerated Public Works program.

The Hill-Burton program, after 17 years of operation, expired June 30, 1964, but renewed early in the next biennium which extends and revises the Hill-Burton program. The revisions recognize a need to stimulate the modernization or replacement of older hospitals, particularly in metropolitan areas.

MENTAL HEALTH AND MENTAL RETARDATION CONSTRUCTION

The 88th Congress enacted the "Mental Retardation Facilities and Community Health Centers Construction Act of 1963" (Public Law 88-164). The purpose of the Act is to provide assistance in combating mental retardation through grants for construction of community health centers and for other purposes.

Near the end of the biennium, Governor Tim Babcock designated the State Board of Health as the State Authority for the development of an overall program to combat mental retardation. The Governor, earlier, designated the State Hospital as the authority to develop an over-all program for improving mental health. Federal grants are available for planning purposes under each program. It appears that the State Board of Health will handle the construction phases of these programs in conjunction with its Hill-Burton activities, assuming that the necessary enabling legislation is forthcoming.

LICENSING PROGRAM

The following is a summary of the facilities licensed by the State Board of Health at the close of the biennium in administering the Hospital Licensing Law and the Boarding and/or Nursing Homes for the Aged Law:

66 General Hospitals	3,452 Beds
1 Tuberculosis Hospital	255 Beds
56 Nursing Homes	1,789 Beds
(22 sub-units of General Hospitals, 572; 34 Free Standing, 1,217 Beds)	
95 Homes for the Aged:	
23 Nursing Homes	628 Beds
58 Personal Care Homes	847 Beds
14 Boarding Homes	181 Beds

Nursing Home and Homes for the Aged construction, other than Hill-Burton, reached its peak during the biennium. While many private operators would be interested in providing better facilities, the necessary finances are not available to them for the construction. Hill-Burton financial assistance is restricted to Counties and non-profit groups. There is available through the Federal Housing Administration a loan arrangement, otherwise the operators of proprietary homes must look for private financing.

The following is a summary of Nursing Homes and Homes for the Aged in various stages of construction, or completion, at the close of the biennium:

SUMMARY—NURSING HOMES AND HOMES FOR AGED CONSTRUCTION

Facility	Location	No. of Beds	Status
Crest Nursing Home.....	Butte	60	In Operation
Hillside Manor	Missoula	100	In Operation
Valley View Estates	Hamilton	56	In Operation
Wayside Sanitarium	Missoula	42	In Operation
Park Place Nursing Home.....	Great Falls	60	Completed
Mary Sande Nursing Home.....	Big Sandy	22	In Operation
St. John's Lutheran Home.....	Billings	129	In Operation
Mount Powell Manor.....	Deer Lodge	50	Prep. Dwgs. & Spec.
Flathead Nursing Home.....	Polson	50	Prep. Dwgs. & Spec.
Laurel Nursing Home.....	Laurel	29	In Operation
Gallatin County Rest Home.....	Bozeman	34	Const. Completed
Valle Vista Manor.....	Lewistown	56	Under Construction
Hot Springs Manor.....	Hot Springs	56	Under Construction
Vickhammer Sunset Home.....	Malta	17	In Operation
Valley Convalescent Home.....	Billings	100	Under Construction
New Western Manor Nursing Home.....	Billings	150	Under Construction
Madison County Nursing Home.....	Sheridan	39	In Operation
Eventide of Dillon.....	Dillon	60	Under Construction
Royal Manor.....	Missoula	19	Under Construction
TOTAL BEDS		1,129	

NUMBER OF BED GAINS AND LOSSES

In comparing the number of nursing home and homes for the aged beds with those of the previous biennium, there has been an increase of 1,032 nursing home beds; a decrease of 159 personal care beds, and an increase of 59 boarding home beds for a net gain of 932 beds.

Upon completion of the homes currently under construction, the nursing home bed needs for the greater part of the State will be met. It appears that future construction will be limited to smaller homes in rural areas, possibly as sub-units of the local hospitals.

INSPECTIONS

Inspections are made of all hospitals, nursing homes and homes for the aged prior to the issuance of licenses. Due to staff limitations and budget, only an annual inspection has been made of every facility in the State. In facilities presenting licensing problems, more frequent inspections were made.

The licensing program for hospitals, nursing homes and homes for the aged was transferred from the Division of Hospital Facilities to the Division of Environmental Sanitation on January 30, 1964. In doing this, all licenses issued by the State Board of Health will be concentrated in one place. It is also believed that through coordination of other disciplines, such as sanitarians in the Division, local sanitarians, local health offices, health officers, etc., a closer relationship can be developed with hospitals and homes. Since the licensing standards also contain the construction standards, drawings and specifications for construction are to be reviewed by the Division of Environmental Sanitation.

Through the Board's Nursing Home Project, described in this report on page 22, improvement by means of an in-service training program for nursing home personnel is underway. These programs are designed to assist small hospitals and homes to render better patient service and care.

The Standards for Homes for the Aged, which became effective July 1, 1960, allowed existing homes a three year period to make the improvements necessary to comply with the requirements. One of these requirements was the installation of automatic sprinkler systems in homes of two or more stories in height of ordinary, or frame construction.

AUTHORITY TO ENFORCE STANDARDS CHALLENGED

A number of the homes met this requirement by June 30, 1964. Several operators determined to construct new facilities rather than make necessary changes to their existing homes, while 20 homes ceased operation. Six homes challenged the authority of the State Board of Health in the enforcement of this item by court action and obtained a restraining order to continue operation pending a court decision. As of the close of the biennium, the case was still pending.

An opinion rendered by the Attorney General, on October 4, 1948, concluded that the licensing of county owned and operated homes for the aged is not clearly contemplated by Chapter 192, Laws 1947. Chapter 88, Montana Session Laws 1963, authorized counties to erect, equip, maintain and operate a boarding home or nursing home for the aged subject to Standards published by the State Board of Health. The Board at its July 27, 1963 meeting, acting on advice from the Attorney General, adopted the Montana Licensing Law and Standards for Homes for the Aged as the Standards specified in Section I, Chapter 88, Montana Session Laws, 1963. In adopting these Standards, the Board extended the sprinkler system requirement to June 30, 1964, for county owned and operated homes.

SUMMARY OF PROJECT CONSTRUCTION SCHEDULES

June 30, 1964

Project	Locations	No. of Beds	Total Est. Cost	Est. Fed. Share	Status
I. HOSPITALS					
Hotel Dieu (St. Joseph's)	Polson	40	\$ 896,080.04	\$ 283,798.11 166,019.14 I-H*	Completed
Poplar Community Hosp.	Poplar	22	468,507.12	81,402.85 265,000.00 I-H*	Completed
Montana Deaconess Hosp.	Great Falls	199	4,265,223.00	1,426,176.00**	Under Construction
Columbus Hospital	Great Falls	Remodeling Nurses School	1,469,306.00	583,822.00	Completed
Holy Family Hospital	St. Ignatius	20	689,515.80	138,150.50 344,139.52 I-H*	Completed
Ruby Valley Hospital	Sheridan	9	168,514.00	67,406.00	Completed
Powell County Memorial Hospital	Deer Lodge	35	535,949.00	214,380.00	Under Construction
St. John's Hospital	Helena	10	322,845.00	129,138.00	Bid Opening 7/7/64
	SUB-TOTAL		\$8,815,939.96	\$2,924,273.46 775,158.66 I-H*	
				\$3,699,432.12	
St. James Community Hospital	Butte	Nurse's Residence	598,120.00	208,430.00 APW	Under Construction
Kalispell General Hosp.	Kalispell	Nurse's Residence	292,940.00	155,865.00 APW	Under Construction
	SUB-TOTAL		891,060.00	364,295.00 APW	
	TOTALS		\$9,706,999.96	\$4,063,727.12	

*Indian Health Funds

**Includes transfer of \$231,685.37 from Wyoming for School of Nursing.

APW—Accelerated Public Works Program

II. MEDICAL FACILITIES

Montana Deaconess Hosp.	Great Falls	108	\$ 800,382.00 312,533.00	\$ 320,152.82 (NH) 125,013.00 (D&T)	Contracts Awarded 3/31/64
Faith Lutheran Home	Wolf Point	60	520,158.91	146,440.18	Completed
St. John's Hospital	Helena	25	359,622.00	132,503.00	Bid Opening 7/7/64
Fallon County Nursing Home	Baker	24	287,885.00	115,154.00	Prep. Dwgs. & Spec.
Sweet Grass County Home for Aged	Big Timber	25	287,556.00	93,383.00	Prep. Dwgs. & Spec.
Roundup Memorial Hosp.	Roundup	16	155,500.00	62,200.00	Prep. Dwgs. & Spec.
			\$2,723,636.91	\$ 994,846.00	

PART 11. GENERAL SERVICES

Part II of this Report includes the information from those sections of the Board's organization which are in addition to the information already given in Part I.

These include **Emergency Health Planning**, **New Legislation** affecting Public Health, **Local Full-time Health Departments**, **Family Health Services for the Mentally Ill**, and **Staff Committees**.

Also included in Part II are Reports of Division activities which serve as "Service Divisions" to the Public Health Programs. This section provides information which either implements or adds to the activities reported in Part I. These are the **Microbiology Laboratory**, **Public Health Education**, **Public Health Nursing** and **Records and Statistics**.

EMERGENCY HEALTH PLANNING

CIVIL DEFENSE EMERGENCY HOSPITALS

There are ten Civil Defense Emergency Hospitals located at Billings, Bozeman, Butte, Helena, Kalispell, Lewistown, Miles City, Dillon, Shelby and Warm Springs. During the last year of the Biennium, emphasis has been placed on keeping these Hospitals in 100% operating condition.

During the summer of 1963, the General Services Administration inspected each hospital for: fire, security, refrigeration, exchanged deteriorated items, started motors, and checked the general safety of the hospital.

Since that time all storage deficiencies have been corrected for all ten of the Hospitals.

These 200 bed hospitals, originally designed to operate for three or four days, are currently being expanded with supplies capable of operating for 30 days. The additional medical supplies will bring the total storage requirements needed to 8,000 cubic feet. All ten communities responded to this need by securing the adequate amount of storage space. Several private business concerns have donated adequate refrigeration space. The value of each of the hospitals will be approximately \$45,000.



Medical Self-Help Training Kit Was Exhibited at the Montana State Dental Association Meeting in Billings in May 1964.

The community health leaders who are responsible for the storage of the Civil Defense Emergency Hospitals are also responsible for the preparation of its use. The leaders in each community are now preparing a written plan which describes in detail how these hospitals will be set up and operated in the event of a disaster.

MEDICAL SELF-HELP TRAINING

Until July 1, 1963, the Medical Self-Help Training Program was carried on by the Board's Public Health Educators in addition to their regular programs. Classes were started in three counties, and the reception was very good.

Beginning in July, the Public Health Service assigned a Health Representative to the Board to give assistance in Emergency Health Planning which includes Medical Self-Help Training.



A County Sheriff Serves as an Instructor in the Medical Self-Help Program. He is Pictured as He Explains the Effect of Radiation.



An Instructor Who is a Housewife is Shown as She Instructs a Medical Self-Help Class on the Method of Opening a Can of Food Which Supposedly Was Contaminated by Radiation.

In August 1963, the Governor's Medical Self-Help Committee met and recommended that the program be expanded as rapidly as possible.

By the close of the Biennium 14 counties had the training program underway. They are: Dawson, Fergus, Flathead, Gallatin, Lake, Lewis and Clark, Missoula, Park, Pondera, Ravalli, Richland, Roosevelt, Silver Bow and Stillwater. Three high schools and three colleges are utilizing the program. Some other groups participating are 4-H clubs, Girl Scouts, U. S. Forest Service, State Employees and several other clubs and groups.

The Red Cross is adding six hours to their existing course for Medical Self-Help Training. This enables students to obtain certificates from both courses. Within the State, 1,448 students had been trained by the close of the Biennium.

The Rural Civil Defense Specialist on the staff of the Extension Service has been promoting Medical Self-Help Training to community leaders along with the "Project Think" program.

The Emergency Health Planning Unit is participating in the "Health Task Force" which is planning for the management of resources under post-attack conditions. The unit also would be the liaison between the State Board of Health and the Public Health Service during this time.

HEALTH TASK FORCE

NEW LEGISLATION OF PUBLIC HEALTH INTEREST

The following is a summary of legislation enacted by the 1963 legislature which is of public health concern.

69-536.1. Clerks of Court to report divorces and annulments—information as to parties and Judicial information on divorces and annulments. This legislation requires more complete reporting of information regarding divorces and annulments.

The passage of this legislation has been very effective and its results are reported in more detail on page 69 of this report.

Amendments were enacted on **69-1342, Declaration of state public policy on subdivisions; 69-1343, "Subdivision" defined and 69-1345, Filing of map or plat subject to sanitary restriction—submission to and approval by board of health—removal or modification of restriction.**

These amendments change the definition of a subdivision as any tract of land divided into "two or more parcels" where as heretofore, the law stated "five or more parcels" of land. The amendments make it possible to more effectively control water and sewage facilities in new subdivisions for better protection of those purchasing subdivision lots. Its effect is explained in more detail on page 42 of this Report.

16-1036. Lease of county property for boarding home or nursing home for aged persons; 16-1037, County construction and operation of boarding home or nursing home for aged; and 11-1038, Services provided at county home, and 71-222—Per capita and millage taxes to be levied—expenditures.

These laws authorize Board of County Commissioners to lease county facilities for the purpose of operating a boarding home or nursing home for the aged; authorize Boards of County Commissioners to erect, equip, maintain and operate a boarding home or nursing home for the indigent or non-indigent aged subject to standards established by the State Board of Health; and authorizes counties to levy per capita and millage taxes for poor fund and allow expenditures from the poor fund for maintenance or improvements to any county buildings used directly for care of the poor. These expenditures are authorized only when such buildings must be furnished, repaired or improved in order to meet legal standards required by the State Board of Health, and when the need for such expenditures has been approved by the public welfare department.

38-701.—38-711. Repeals laws relating to the State Hospital for Inebriates and enacts **38-712 to 38-724 establishing an Alcoholism Services Center.**

These laws make legal modern day treatment of alcoholics in contrast to the provisions of the old law establishing a State Hospital for Inebriates in connection with the State Hospital at Warm Springs.

17-410. Emergency care rendered at scene of accidents. Under the provisions of this law the liability for any civil damage to licensed physicians, surgeons or any other person giving care or assistance without compensation at the scene of an emergency or accident is eliminated.

82-3401, 3402—Legislative intent—liberal construction. Provided under this measure is the requirement that meetings of all public or governmental agencies with certain specified exceptions shall be open meetings.

16-1904. Hearings on budget-adoption-fixing tax levies.

Under the provisions of this law, the amount appropriated by county commissioners in the annual county budget must not exceed more than 5% of the amount actually spent for that item in the preceding fiscal year.

75-5003. Local Boards of Trustees—powers—determination of children requiring special education and the type of education responsibility of state superintendent—reimbursement by state—computation.

Trainable mentally retarded children are placed within the responsibility of the public schools.

Resolutions Enacted

The Joint resolution changing the name of the State Laboratory Building to the W. F. Cogswell Building is explained in this Report on page 1. Two other resolutions were enacted, one of which requests the legislature to conduct a study and report on methods for the full development of water and natural resources and pollution control and the other asking the Governor to appoint an interim committee of seven members to study the nature, character and extent of air pollution in Montana and report to the legislature of 1965.

LOCAL FULL-TIME HEALTH DEPARTMENTS

A Health Department is termed “full-time” when it has the services of a full-time health officer.

During the biennium, the Lewis and Clark County Health Department became full-time and the Gallatin County Health Department went from full-time to part-time.

Besides Lewis and Clark, only Missoula and Cascade Counties maintained full-time health departments.

The State Board of Health has been forced to reduce the amount of financial aid given to counties for public health programs. In 1962, \$52,893 was budgeted for this purpose, and by 1964 it was reduced to \$23,557. It is hoped that in the future the State Board of Health will be able to assist counties to establish their own public health services.

Because of the great distances involved, it is difficult for the State Board of Health to give direct services such as public health nursing and sanitarian visits on an efficient basis.

FAMILY HEALTH SERVICES FOR THE MENTALLY ILL



Mental Health Unit Staff Meetings Are Held Periodically in the Butte-Anaconda Office.

The "Family Health Services for the Mentally Ill" Project was renewed for another three-year term by the National Institute of Mental Health of the Public Health Service in order that the objectives and goals established at the time the project was initiated can be more nearly met.

The purpose of the project is to demonstrate continuity of care to the mentally ill, and was developed cooperatively with the State Hospital at Warm Springs. The project activities are carried out through public health nursing and public health education.

Highlights

The project has been extended to 33 counties, an increase of 7 over the original 26 which provide generalized public health nursing services. The Butte-Anaconda area has remained the area of intensified effort.

Psychiatric counseling has been made available to the public health nurses in the Butte-Anaconda area to assist them in working with their patients.

A workshop for clergy was held in the Butte-Anaconda area and one for clergy and other professional persons was held in the Kalispell area. These people are serving as excellent resource persons in the education programs.

The mental health education group in Flathead County has assumed real leadership in the promotion of mental health education.

Queries to the practicing physicians in the intensified area indicate that the public health nursing service is helpful and that it ought to be continued.

More interest in mental health education study groups is evident.

Closer cooperation and referral between agencies in behalf of the mentally ill and their families has developed in the area of intensified effort. The experience of the public health nurses in the intensified area is being shared through area conferences with the other public health nurses in the State.

A close working relationship has been developed with the Montana Association for Mental Health.

The unmet needs of the mentally ill and their families living in Montana communities are enormous. While this project is pointing out the role the public health nurses and health educators can play in meeting some of these needs, it is evident that a more comprehensive program is needed.

Stabilization of the staff in this project is needed. It is hoped that this is now accomplished but the frequent changes that have occurred have been a handicap.

Continuation of in-service education for the local public health nurses is needed not only in increasing their knowledge of mental illness and in improving their skills but also in changing their attitudes toward mental illness.

Community attitudes on the whole are more negative than positive toward treatment and rehabilitation of the mentally ill. This points to the need for more community education.

There needs to be a much wider interpretation of the roles of the public health nurses and the public health educators among both professional and lay groups.

During the biennium there was a break in liaison activities between the two agencies due to changes in staff at the State Hospital. Steps are underway to resume this liaison function and an annual joint staff meeting is set for early in the fall of 1964.

Both agencies are represented on the Governor's Committee for

Needs

Program Activities

GENERAL ACTIVITIES



The Local Chairman of the Butte Community Education Group, the Executive Secretary of the Montana Association for Mental Health, the Superintendent of the State Hospital and the Executive Officer of the State Board of Health Discuss the Interests of Their Respective Agencies in Mental Health. This Particular Discussion Took Place at the Mental Health Workshop for the Clergy in Butte.



A Local Public Health Nurse Helps a Family Plan for the Care of the Mentally Ill Person in the Family.



A Practicing Psychiatrist Provides Consultation to the Public Health Nurses on the Project Staff Through Case Discussions.

Mental Health and Mental Retardation and the SBH staff keeps informed of the Mental Health Survey being conducted under the auspices of the State Hospital. With the State Board of Health being named the agency with responsibility for the Mental Health Construction program and the Mental Retardation planning and construction, close liaison will continue from these vantage points also.

Increased efforts in public health nursing are being directed to firmly establish continuity of care for the mentally ill, in order that the project on its completion may leave a permanent mark on public health activities in mental health.

With the development of wider interest in mental health programs and study groups, and with the local education committee in Flathead County assuming the responsibility for an on-going educational program, it is expected that improved understanding of mental health will result in a more positive attitude toward the treatment and rehabilitation of the mentally ill.

PUBLIC HEALTH NURSING

The addition of a nursing consultant prepared in mental health has made it possible to resume in-service education in mental health practices in more depth for all public health nurses in the State.

Since there are few universities providing courses in mental health for public health nursing consultants, the number of persons with such preparation is limited. The trend for the future is toward a broad educational preparation of nurses to include the improvement of mental health in communities in an effort to prevent mental illness. In addition, nurses will be prepared to provide total nursing care of those who are mentally ill both in the hospital and in their homes.

In order that Public Health Nurses perform with the highest possible skill in a program of prevention of mental breakdown, it is necessary to upgrade the knowledge of nurses working in the communities of the State. To facilitate the acquisition of knowledge by local nurses, the mental health nursing consultant has met with groups of nurses in all parts of Montana to teach the principles of good mental health and to improve nursing skills in the care of the mentally ill.

As more patients are released from Montana State Hospital to be cared for in their own communities, nursing visits to these patients has increased more than five times since 1956.

PUBLIC HEALTH EDUCATION ACTIVITIES

Community Education Groups on Mental Health were organized early in the Project in the two counties of intensified effort, and in Flathead County. Membership consists of representatives from various clubs, organizations and agencies. Programs and activities of these groups have varied.

In Butte a subcommittee on school mental health was formed, and is representative of both the public and parochial school systems and parents' groups.

In both Butte and Anaconda the Groups "joined forces" with the local Associations for Mental Health when these groups became reactivated. There is no mental health association in Flathead County; the community looks to the chairman of this Group as a "contact person" in assisting various clubs and organizations in planning and conducting programs in mental health. All three Groups have been instrumental through their members in promoting and arranging programs for their various clubs, organizations and schools in co-sponsoring workshops on mental health.

Workshops on Mental Health were held at Butte and Kalispell during one week in March, 1964. The one at Butte was for clergy, with other professional persons invited to the evening dinner meeting. The one at Kalispell was for clergy, physicians, social workers, guidance counselors, public health and educational personnel. The sponsors were the State Board of Health, Montana Association for Mental Health, and local chapters and the clergy in the Butte-Anaconda area, and the Flathead Committee on Mental Health Education in the Kalispell area. Also co-operating were the Montana State Hospital and Mental Hygiene Clinics of Butte and Missoula.

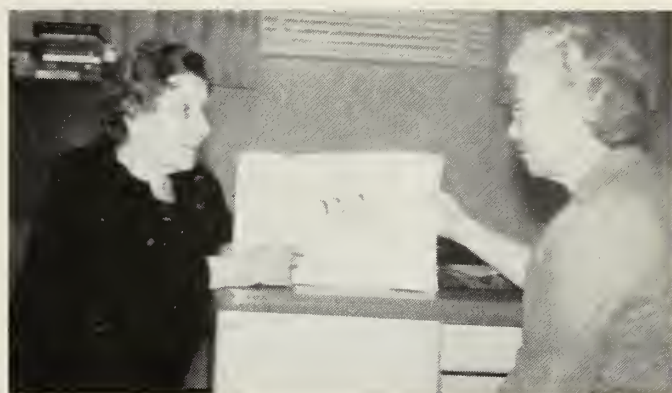
The purpose of the workshop was to assist the professional workers who are not psychiatrically trained in carrying out as well as possible the counseling in which they are of necessity involved.

Mental health discussions are arranged on request in all three counties for Parent Associations, Civic Clubs and Home Demonstration Clubs and several study groups have been organized.

The community interest that has been developed in helping people with emotional problems and for those who are mentally ill, has aided in encouraging a young psychiatrist to locate in one of the communities.



The Local Chairman and Practicing Physician Discuss Program Plans for the Flathead County Community Education Group for Mental Health.



Education Materials in Mental Health Are Reviewed by the Director of the Missoula Mental Hygiene Clinic and SBH Health Education Consultant.

FINDINGS

Changes in personnel at Montana State Hospital have resulted in increased referrals of released patients for public health nursing services.

During the most recent quarter of the biennium, a total of 24 referrals for such services have been made to public health nurses in the State. Public health nurses made a total of 3,668 visits to released mental patients in 1963.

Through cooperative efforts of the staff at Montana State Hospital, it has been possible to provide an orientation of one week's duration for all public health nurses in Montana.

Nurses are becoming increasingly involved with referrals from sources other than Montana State Hospital. As nursing skills improve, their effectiveness is demonstrated and families themselves are requesting nursing services for their ill members. Physicians and other local agencies are also asking for this service especially in the area of intensified service.

The private physician becomes increasingly important as a community resource as larger numbers of mentally ill patients are cared for in the community. Many of these patients can be maintained out of the hospital when medical management is available from local physicians. Public health nurses work closely with physicians to encourage regular medical supervision and to help families carry out physicians' recommendations. Experience has shown nurses to be effective in helping families



The SBH Mental Health Nursing Consultant and Public Health Nurses in the Butte-Anaconda Area Plan With the Hospital's Social Worker for Care of Patients Released From the State Hospital.



Members of the Butte Public High School Faculty Discuss Mental Health Education in the Classroom.

accept the behavior and added burden of care of many such Patients. This has been dramatically demonstrated, in Butte-Anaconda area, patients provided with nursing care have remained out of the State Hospital for longer periods than had been possible before.

Public health nurses have traditionally been involved with families in crisis situations. The Mental Health project has served to reinforce the tenet long held in nursing circles that care of the mentally ill is a responsibility of public health nursing.

The role the health educator can play in a mental health program is being defined.

The utilization of public health education techniques in the mental health program differs somewhat from that of other public health programs. For instance, (1) "lectures" or "talks," that is, the formal presentation of content appears to be of little importance; (2) group discussion appears to be the most successful educational method; (3) the use of films for the purpose of stimulating and focusing discussion has been found to be more important in this program than in other public health programs.

Although the Mental Health project is scheduled for completion in February of 1966, those gains made through the study of mentally ill patients and their needs will increasingly become a part of public health nursing in Montana. Mental health principles are utilized in all programs of the State Board of Health at present. Plans for the future include maintaining a mental health nursing consultant on the State staff to implement the inclusion of the mental health aspects of all program planning.

If the number of persons who become mentally ill is to be reduced, it is important to begin with the preparation of mentally sound parents of future generations. An institute on growth and development is planned to increase nurses' understanding of the "normal child," including ways in which parents can be helped to protect and foster good mental health in their children. This institute for all public health nurses in the State is planned for early in the next biennium.

A study of attitudes undertaken in Montana has revealed negative attitudes on the part of many Montana communities faced with the presence of mentally ill persons in their midst. It is postulated that nurses are handicapped in their efforts to provide services to mentally ill patients under such circumstances. An increased effort toward the community understanding of mental illness and its treatment thus becomes priority as a topic for community education as staff and time permit.

The skills developed in this project and the ability to be effective will continue to be a part of public health nursing practice in Montana. This project has been most worthwhile from the standpoint of adding to the store of knowledge concerned with the care of the mentally ill. Regular conferences in which public health nurses can have the guidance of a psychiatrist are necessary for effective services to the mentally ill. It is hoped that more psychiatrists can be made available for this help to public health nurses in the future as well as more resources for the care of these patients in their home communities.

It is planned to continue the educational programs already underway aiming to reach more groups of people. Tentative plans have been discussed to organize informal group discussions for parents of children with behavior problems with local resource persons assisting.

Where possible, attempts will be made to develop more interest in the mentally ill and in the need for developing community resources for them.

It is hoped that mental health education can be continued after this special project is completed. One of the major findings of the project has been the demonstration of the need for better understanding of mental illness in communities.

STAFF COMMITTEES

THE ACCIDENT PREVENTION COMMITTEE

The Accident Prevention Committee operates by making recommendations in an advisory capacity to the executive officer for implementation in regularly established programs. Its membership includes a public health educator, engineer, nurse, physician, statistician and an industrial hygienist.

The primary emphasis of the committee is placed on the reduction of home accidents. This area of emphasis was chosen since motor vehicle accidents receive the attention of the State Highway Patrol and since such other accidents from drownings, fire, agricultural implements, receive attention from other agencies.

A current proposed project that has the endorsement of the committee is aimed to raise the level of emergency care in Montana communities. It is proposed that this would be accomplished in three steps: (1) A survey would be made of emergency care facilities and training of personnel providing this care in communities. (2) Training courses would be provided to raise the level of proficiency of ambulance operators where needed. (3) An evaluation to determine what improvement would have been made in equipment and proficiency of personnel involved in emergency care activities.

SEMINAR COMMITTEE

The committee to plan and arrange for in-service training of the professional staff continues this function. Its purpose is to see that new public health information and trends together with new programs are brought to the attention of the professional staff.

Keeping abreast of the new scientific information in public health and related areas is a never ending and often momentous task. Through the staff seminar at least a synopsis can be presented and those specifically concerned can pursue the study further. These seminars also serve to provide some program coordination between divisions.

MICROBIOLOGY LABORATORY

Highlights

The "PKU Early Detection Screening Program" for newborn infants in hospital nurseries, by examination of blood and urine filter paper specimens for phenylalanine was initiated.

The contract with PHS Heart Disease Control Program for the identification of Group A beta-hemolytic streptococci by the fluorescent antibody technique was completed.

Field investigation studies of the primary cases of syphilis by darkfield microscopy were facilitated.

The laboratory participated in (1) a streptococcal (beta-hemolytic) survey made in the Helena local schools, in cooperation with the local health department. This survey was for the purpose of detecting the incidence among school-age children.

(2) Survey of serologic tests for syphilis run upon blood specimens from food service persons' health examinations made by the local health department in Missoula.

Laboratory services were extended:

1. For diagnostic studies for tuberculosis,
2. For improving methods of evaluation and approval of local hospital and clinical laboratories requesting approval, to run serologic tests for syphilis,
3. For increased surveillance of enteric infections,

4. To carry out the required bacterial analysis on increased water samples caused by the flooding conditions,
5. To carry out bacterial analysis on water supplies of towns of 2,500 twice a month instead of once.

Needs

There is a need for:

Provision for laboratory participation as required to meet the need for supportive laboratory services pertaining to programming for: Vaccination Assistance Act; Emergency Disaster Planning; Chronic Disease; Salmonella and Shigella surveillance; Extension in follow-up and case finding in Syphilis and Tuberculosis; Extension of the PKU screening of newborn infants.

Provision for training through refresher courses for the laboratory technical staff.

Continued medical education in the proper use of laboratory facilities.

PROGRAM OBJECTIVES AND ACTIVITIES

The Microbiology Laboratory provides the following:

1. Diagnostic, reference and consultative services for communicable diseases to other State Departments and institutions; local health departments, practicing physicians, clinics and hospitals; and to other divisions of the State Board of Health requiring supportive laboratory services for their programs.
2. Field services for administering the laws and regulations related to: registration of clinical and hospital laboratories; approval and inspection of those laboratories requesting approval for the performance of serologic tests for syphilis; and for providing training in newer laboratory techniques to laboratory personnel by means of refresher workshops.

SYPHILIS

Samples of blood for syphilis serology studies continue to account for the greatest total number of examinations completed each year. During the biennium 1962-64 period 76,303 examinations were run on 63,488 specimens. A total of fifty laboratories was registered in 1964. Forty-seven of them are now approved for performing diagnostic tests for syphilis. Bloods found reactive by these laboratories are referred, in most instances, to the State Laboratory for confirmation. Evaluation of performance in these laboratories is carried out by an interchange of known samples twice each year and refresher workshops in laboratory diagnosis of syphilis are presented at intervals as the need indicates.

GONORRHEA

The use of Stuart's Transport Media as a carrying fluid has facilitated the submission of cultures for isolation of the gonococci from areas in which this laboratory diagnosis service is not available.

TUBERCULOSIS

Laboratory diagnostic studies for tuberculosis are carried out by microscopic, cultural and animal virulence studies. During the 1962-64 biennial period, 11,070 examinations were run on 4,783 specimens. These studies are being extended to include the adoption of newer procedures recommended by the PHS Communicable Disease Center for the isolation and identification of **M. Tuberculosis** and associated allied organisms encountered in routine diagnostic samples, which may be of potential pathogenic significance. Studies will include drug sensitivity studies when indicated.

A significant reservoir of tuberculosis presents a continued need for intensified case-finding and supportive Salmonella Surveillance Program of the PHS Surveillance Unit is needed.

ENTERIC PATHOGENS

With increased surveillance of enteric infections, there is an increasing number of specimens, bloods and fecal samples, submitted for examination for organisms of the typhoid-dysentery group.

Infections due to the *Shigella* group are extremely common throughout certain of the rural areas, particularly on the Indian Reservations. These may prove very serious illnesses in small infants where resulting dehydration may be fatal.

SANITARY BACTERIOLOGY

Bacterial analysis of drinking water samples, from all of the municipal water supplies throughout the State, public parks, campgrounds, schools, farm and private water supplies, are routinely carried out. During the 1962-64 biennial period a total of 20,403 samples were received and tested.

Flood conditions which began in June, due to the excessive rainfall and heavy snow-packs in the mountains, resulted in a great increase in water samples submitted for bacterial analysis.

PKU SCREENING PROGRAM

A screening program for the detection of phenylketonuria in newborn infants by the laboratory using the Guthrie technique to analyze specimens for phenylalanine was offered on a voluntary basis to a limited number of hospitals in 1962.

Abnormally high levels of phenylalanine may produce a disorder called phenylketonuria, one of

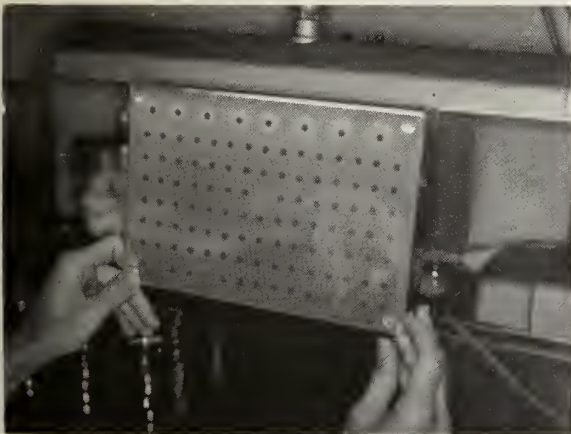


The Staff of the Laboratory Section Carrying Out Water Bacterial Analysis Carried a Load About Twice the Normal Number of Samples as a Result of the Flood Which Began on June 8, 1964. During the Month of June 1964, 1,466 Water Samples Were Received and 1,743 Sample Bottles Sent Out. During July 1964, the Beginning of the Next Biennium, 1,740 Samples Were Received and 1,787 Bottles Sent Out.

the causes of mental retardation, if the disorder is not detected during the infant's first few weeks of life.

By the end of July 1964, there was a total of twenty-eight hospitals participating and a number of others had made application for inclusion.

One positive case was detected in the first 5,000 infants tested and this baby was placed upon a corrective diet with good results. It is most fortunate this disorder was discovered so early in the infant's life.



The Above Illustration Shows a Culture Plate of the Blood Filter Paper Samples Run by the Guthrie Technique for the Detection of Phenylketonuria. The Top Row Shows Rings, Indicating Positive Findings in Varying Degrees.



The Position of Virologist Which Had Been Vacant for a Year Was Filled in June 1964 by Heather England, Ph.D.

VIRAL DIAGNOSTIC SERVICES

The functions of the Viral Section are to:

1. Provide diagnostic laboratory assistance for physicians and local health departments.
2. Work with other divisions of the health department and other State agencies in the investigation of viral and rickettsial diseases.
3. Maintain services essential to the success of the Surveillance Programs for Influenza, Poliomyelitis, and any others which may be practical, carried out under the direction of the PHS Communicable Disease Center.
4. Develop and improve relations and communication between the practicing physicians and the state public health laboratory. It is essential that physicians gain the correct concept of the value of etiological diagnosis of viral infections on a specific patient, as well as in epidemic situations. This should be a State responsibility.
5. Develop and simplify viral laboratory diagnostic procedures.

PUBLIC HEALTH EDUCATION

Health educators are participants in most of the Board's educational programs. Their services are given to the directors of the various public health programs of the State Board of Health, to local health personnel and direct services are given in educational programs for citizen groups and local school and college faculties.

Highlights

The citizen enthusiasm and response to the public health programs in which the Board's public health educators have been working during the Biennium is most gratifying. The principles of community organization and group discussion are proving their value in these programs.

Needs

Continuing efforts are needed to carry on the educational aspects of the programs now underway. As programs develop they become more demanding for assistance in bringing projects to a successful conclusion.

Categorical funds have not been available for health education participation in all the SBH programs where they are needed, as for instance, the chronic disease program. Since health education cuts across all public health programs, it would be advantageous if general health funds for these purposes were available, rather than dependence on so many categorical items in the budget.

Space for a workroom for the construction of visual aids as a part of the public health education program is needed. This would also relieve the crowded condition in the limited space now allocated to the professional and clerical staff.

PUBLIC HEALTH EDUCATION ACTIVITIES

PROFESSIONAL EDUCATION

In the area of professional education there has been health educator participation during the biennium in the nursing workshops for the Education for Parenthood Program, and Mental Retardation; in the newly appointed Venereal Disease Advisory Committee; Cardiac Nursing Committee; Joint Staff Committee (SBH and Dept. of Public Instruction) and the Montana Health Planning Council. Planning is underway for participation in the "Montana Exposition for Rehabilitation" to be held early in the next biennium.



Providing Consultation on Educational Techniques for Professional Education Conferences, Seminars, Workshops and Other Types of In-Service Training Sessions is One of the Areas in Which the SBH Health Educators Participate.

CITIZEN VOLUNTEERS

With health education direction and assistance, 400 volunteer women, representing over two dozen different organizations, personally contacted over 9,000 homes in the **"Missoula County Self-Survey of the Chronically Ill and Aging"**. They conducted interviews with 1,728 persons aged 65 and over, and 602 younger persons suffering from chronic illness in Missoula County. More information about this survey is found on pages 24 and 25.

In addition to pinpointing the problems of these people, the survey "process" itself was of an educational nature. The persons participating now have a "stake" in trying to find ways and means to meet the needs that were brought to light through the survey.

Citizen enthusiasm in **the screening program to find "suspected amblyopia (lazy-eye)"** among pre-school children in five Montana Counties is paying dividends in sight conservation. The participation of large numbers of volunteers trained by the Board's health educators not only has made it possible to screen several hundred children, but they have become so interested that in many instances they have adopted this as an annual project.

In one county 17 children were referred and within a few weeks 16 of them had been examined and the other child had moved away so no record for him is available. In another county, a public health nurse did the re-screening and seven children were referred and all seven were examined.

In Lewis and Clark County, citizen groups who participated in the public health survey conducted by the Public Health Service, have maintained an interest in assisting in getting the recommendations carried out. The health educator assisting this group, which has joined with the Helena Health Council, is continuing to help in making the findings of the survey known to many groups throughout the county. A subcommittee is working on the Out-of-Hospital Nursing Home Program and another on the home garbage storage problem.

The educational aspects of the **Mental Health Project** reported on pages 54 to 56, have developed slowly but surely. It is estimated that attendance at mental health meetings in the intensified areas is approximately 3,000 and several hundred in other areas of the State.

In the cervical cancer detection program reported on page 28, the activities of the health educators have brought about the motivation of many women in nine counties to seek a cervical examination in the office of their private physicians. Among the women who have reported back, about 39% of those who have had a medical examination, say this is their first such examination—motivating this group is of great importance, since early detection and treatment, if indicated, can prevent unnecessary death from cancer of the cervix.



Photo Courtesy of John A. Forssen, Missoulian
Procedures in "Missoula Survey of the Aged and Chronically Ill" Are Explained to the Area Volunteer Chairmen by One of the Board's Health Educators.



A Training Program for Leadership in Group Discussions on Mental Health Precede Educational Meetings. This is Such a Conducted Training Session at Whitefish.

OTHER EDUCATIONAL PROCEDURES

Promoting the utilization of the "Guide for the Montana School Health Program" has continued. The School Health Workshop mentioned on page 8 was geared toward this objective as well as to provide information and motivation in many phases to improve school health programs. Health educators, with the cooperation and in some instances, participation of staff from the State Department of Public Instruction, have reached the staff of many schools during the Biennium. In-service training for school faculties has also been provided in the counties where the health educators have worked in the several programs mentioned in this report, when they are in the local areas.

There has been participation in the conferences of the Joint Staff Committee and the instructors in health of the Montana Colleges.

In the **Heart Disease Control Program** there has been continued participation in the College Freshman program. This year the innovation in the program was a pilot program to determine the value of providing the same experience for high school students with a history of rheumatic fever. The pilot program was conducted in the Butte public and parochial schools, preceded by meetings for parents and teachers. The reception of this program indicates that it is filling a long-felt need. Plans are being made to continue it in Butte for students with a history of rheumatic fever or rheumatic heart disease, their teachers and parents, and to extend it to other areas of the State as staff is available.

The educational aspect of the Heart Sounds Screening Program was participated in by three of the Board's health educators in the spring of 1964.

In the "Education for Parenthood Program", health educators have continued to provide educational consultation to the nurses serving as leaders for the high school girls and adult programs. In June 1964, a workshop for men instructors from selected high schools was held to prepare them for their leadership in a program for the high school boys. During the coming year, follow-up will be provided to assist in getting the program underway in the schools represented at the workshop.

Veneral disease education has been one of the areas of major activity during the biennium. The counties where programs for school faculties and citizen groups have been held are shown on the map on page 35. Educational materials have been prepared for use in this program.

Field Training in Public Health Education for students from the



(Above Caricature Courtesy of Mrs. Ginny Paulis and Mrs. Annette Haegele, Glasgow.)

Montana Women Are not "Hiding Their Heads in Sand" as the Proverbial Ostrich Might, but Are Participating in a Program for the Early Detection of Cervical Cancer.



Touring the Hospital Was One of the Educational Experiences Included in the Workshop on "Education for Parenthood" for High School Men Faculty Members Held in Missoula.



Photo Courtesy: Daily Ravalli Republican
Conducting In-Service Training Sessions for School Faculties is One of the Contributions Health Educators Make in the School Health Program. Pictured Above is Such a Training Session for School Personnel in the Dental Health Program—"Ravalli County Topical Fluoride Application."



Field Training Opportunities Have Been Provided on Request of the Schools of Public Health at the Universities of Minnesota, North Carolina, and California at Berkeley, During the Biennium.

PREPARATION AND DISTRIBUTION OF MATERIALS



During the Biennium, the Board's 199 Films Have Been Shown 2,531 Times, and 45,465 Persons Have Seen Them as a Part of an Educational Program in One or More of the Various Fields of Public Health.

Visual Aids Constructed in the Division of Health Education Contribute to the Effectiveness of Many of the Board's Educational Programs.



Schools of Public Health is continuing. This program is advantageous to both the schools and the State Board of Health. The students bring new information and procedures to the staff and in 1964, the Schools of Public Health in North Carolina and California at Berkeley, conducted field training conferences for the Board's staff supervisors. These, too, have an educational value.

PROGRAMS DROPPED

With the discontinuance of Public Health Districts I and II during the biennium, the intensified education services in the Indian Health program on the Reservations in these districts ceased. Because of budget restrictions, the Education in Alcoholism program during the biennium has been limited

to some assistance to the Richland County Council on Alcoholism (Sidney) and to the Northcentral Committee (Great Falls) on Alcoholism. A conference on Alcoholism was jointly sponsored by the State Board of Health and the Northcentral Committee.

Pamphlet material for use with the Board's programs have included a V. D. publication, "Wise-Up", "Nursing Care in the Home", "Heart Sound Screening", "No Woman Need Die of Cervical Cancer".

Revisions of the pamphlet, "Montana Cleft Lip-Cleft Palate Program", the Film Catalogue and the "Education for Parenthood Guide" have been made.

Assistance was given to Missoula in the preparation of its Survey Report on the "Chronically Ill and Aged".

The Board's official bulletin, "Treasure State Health", is prepared and distributed monthly. During the biennium, 63,600 copies have been made available.

New book acquisitions to the State Board of Health Library have numbered 182, bringing the total number of volumes to 5,096. The current 87 monthly scientific publications are routed to interested staff.

The number of pieces of literature on health topics distributed during the biennium totaled approximately 50, 575.

A few new demonstration materials have been acquired through purchase. Several have been prepared by the staff and include: "Colostomy Irrigation", "Tooth Functions", "Tooth Structure", "Progression of Untreated Cancer of the Cervix", adaptations of the "Hidden Sugar" exhibit. Charts have been made on Venereal Disease; Montana Fluoridation Results; Air Pollution and Radiological Health. Innumerable projection transparencies have also been prepared. A series of 35mm slides has been prepared for the Education for Parenthood Program.

Exhibits have been constructed on the Cleft Lip-Cleft Palate Program, and a Cancer Register. Plans are underway to construct several exhibits depicting the Board's Rehabilitation Services.

With 50 new films acquired during the biennium, the total number of 16mm sound films is now 199. These films have been shown 2,531 times to 45,465 persons during the biennium.

Cumulative Health Records for use in the School Health Program have been distributed. These number 50,425, with 19,942 Health Information Blanks distributed.

PUBLIC HEALTH NURSING

The major function of public health nursing is in the prevention of disease and in the promotion of health of all people in the community including the rich and the poor, the young and the old, wherever they are found. In public health nursing, contrasted to hospital nursing, "the community is the patient."

The Division of Public Health Nursing has responsibility for the recruitment and establishment of credentials and the recommendation of qualified public health nurses for employment in Montana, as well as the supervision of all nurses employed in public health positions in the State. Consultant service is provided by the division of nursing staff to the full-time local health departments in Montana.

Public health nurses provide services to people in their homes, schools, or in clinics. They participate in most community programs whether they be health or other social service activities. Nurses comprise the largest group of workers in the public health field.

Highlights

The public health nurses working in Montana communities made 122,500 visits to families during the biennium.

The Out-of-Hospital Nursing Care Program is organized and coordinated in local health services in three counties.

Requests for in-service education for staffs in nursing homes have accelerated the consultation service provided by this division.

Regulations relating to public health nursing functions were revised and adopted. This revision, the first since 1918, was needed in order to bring them in line with up-to-date public health nursing activities.

The new classification system for public health nurses adopted by the Joint Merit System Council and accepted by the State Board of Health upgrades the educational qualifications of public health nurses.

There has been added impetus in the nursing program to provide care for the mentally ill released from Montana State Hospital by filling the nurse consultant position which had been vacant for two years.

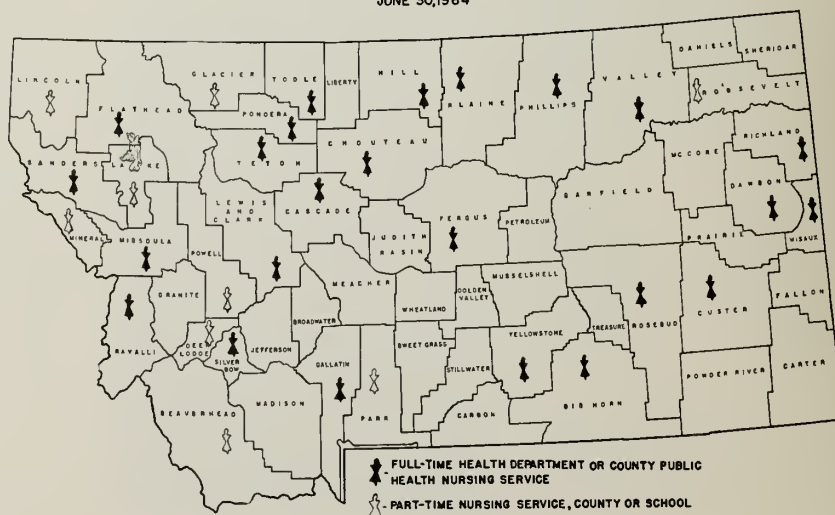
Needs

The employment of qualified public health nurses by local agencies and a higher ratio of public health nurses to the population for all areas of Montana are the greatest needs in public health nursing.

STATUS OF PUBLIC HEALTH NURSING

With the addition of a public health nurse in Chouteau County during the biennium, the total number of counties providing public health nursing services has reached thirty-three (33) who have at least minimal services. Public health nursing services are available to approximately four-fifths of the State's population.

PUBLIC HEALTH NURSING SERVICE IN MONTANA
JUNE 30, 1964



Experience has demonstrated that local communities receive more and better nursing service for the money expended when the nurses employed for this purpose are well grounded in the principles and practice of public health nursing. It is difficult for local employing agencies in some areas of the State to gain understanding of this concept. To many County Boards, "a nurse is a nurse." As vacancies occur employers are encouraged to choose a qualified public health nurse or a nurse who can qualify herself through further academic experience. This practice will continue in an earnest effort to up-grade the quality of nursing care available to the people of the State.

ACADEMIC PREPARATION IN PUBLIC HEALTH NURSING

Health departments in Great Falls and Bozeman have provided field experience to Montana State College nursing students for many years. With the addition of Missoula County Health Department to this program, these three agencies now provide field experience in public health for most of these students.

Before Missoula County was ready for students in May, 1964, it had been necessary to place students in widely scattered areas. Grouping students in health departments cuts down travel time for instructors and allows for more supervision and guidance by those responsible for student field experiences.

The Division of Public Health Nursing shares responsibility with Montana State College in arranging for the best possible field experience for student nurses.

STAFFING P.H.N. DIVISION

Recruitment of fully qualified nurses for consultant positions and further education for two staff members has resulted in a full complement of nursing consultants on the State staff. Of the two consultants who returned to school for further preparation during the biennium, one assigned to the Heart Disease Control Program has prepared herself fully for her position. The other is now prepared in the Mental Health aspects of public health. This consultant is now Director of the Division.

The consultant assigned to Crippled Children's Services provides consultation on a statewide basis. In addition to her own duties during the past year, she has served as Acting Director of the Division of Public Health Nursing during the illness and death of Miss Dixon. After the death of the Director of Child Health Services, the same consultant was appointed Administrative Assistant in the Division of Child Health Services, at the same time retaining her responsibilities as a nursing consultant.

SPECIALIZED CONSULTATION

Public health nursing is a necessary component of most State Board of Health programs providing services to the people. In addition to their responsibilities for supervision of public health nurses in an assigned area of the State, four members of the consultant staff have responsibilities in Programs of the Division of Disease Control: Heart Disease Control, Out-of-Hospital Nursing Care, Communicable Disease and Tuberculosis, and improving the nursing care in Nursing Homes; two are assigned to Maternal and Child Health programs, one in Crippled Children's Services, and one in mental health.

HEART DISEASE CONTROL

Consultant services were provided to the "Heart Sounds Screening Program" carried out in seven northeastern counties. Assistance was provided in the administrative planning for the program and for follow-up services for those children in need of further care.



The Public Health Nursing Consultant in the Heart Disease Program Demonstrates the Use of the Equipment in the Heart Sound Screening Program.

NURSING CARE IN NURSING HOMES



The Public Health Nursing Consultant Teaches the "Range of Motion Technique" at a Nursing Home.



A Diabetic Patient is Instructed to Administer Her Own Insulin by the Local Public Health Nurse.

COMMUNICABLE DISEASE

AREA CONFERENCES

Prevention and control of disability is a major goal in the program to improve nursing care in nursing homes. In-service education sessions are conducted in the nursing homes in Montana to assist in improving nursing care to the State's rapidly increasing older population.

OUT-OF-HOSPITAL NURSING CARE

The Out-of-Hospital Nursing Care Program has experienced two exciting years in Montana. The addition of public health nurses in three local areas has allowed for the provision of direct professional nursing care to patients in their homes. The family physician provides the medical management in each case.

One local public health nurse has been sent to a rehabilitation facility in California to increase her effectiveness in this program. It is hoped other local public health nurses can be more fully prepared in rehabilitation nursing.

Those farmers and industrialists who had a major part in settling Montana now comprise a large percent of our aging population. Public health nursing services has in many instances allowed older members of our population to stay in their own homes through minor illnesses and in the rehabilitative phases of more major health problems.



The Local Public Health Nurse Provides Nursing Care in the Home of an Arthritic Patient.

The consultant assigned to communicable disease and tuberculosis served for one year as supervisor in Health District #1 with headquarters in Hardin. Follow-up of tuberculosis patients and contacts through correspondence and personal contact is a major responsibility of this consultant along with her work as a supervisor of public health nurses in local areas.

In order to make the most efficient use of time spent in the field, consultants arrange for public health nurses from adjacent counties to meet together in small groups for "area conferences" dedicated to the improvement of nursing care.

Experience has proven this conference method to be the most productive for most phases of in-service education to acquaint local public health nurses with new programs as well as to improve their skills in the broad field of nursing.

Area Conferences concerned with Maternal and Child Health, School Health, Hearing Conservation, and Mental Health were conducted during this biennium.



State Board of Health Consultants Conduct Area Nursing Conferences in the Principles of Mental Health.

MENTAL HEALTH

Nationwide changes in the philosophy of care of the mentally ill places more responsibility on the local community for providing services to these patients. More and more of such patients are being served by public health nurses in their own homes.

In addition to patients referred for public health nursing service by the Montana State Hospital, practicing physicians, Mental Hygiene Clinics, and Departments of Public Welfare are now making referrals for public health nursing services. Recognition of the contribution public health nurses can make to the care of the mentally ill is best demonstrated in the Butte-Anaconda area where intensified nursing services have been made possible by the Mental Health Project. As in other diseases of a chronic nature, the public health nurse working closely with the physician, can maintain many of these patients in their homes. This program is further described on pages 53-56.

MATERNAL AND CHILD HEALTH

The hospital nursing consultant provides consultative services to all hospitals in Montana. In addition to her teaching and consultant role to all hospitals, she provides direct service when necessary. Helping with the investigation and control of a diarrhea epidemic among severely retarded boys in the State Training School at Boulder is an example.

The Maternal and Child Health Nursing consultant participated in the workshop on Education for Parenthood for high school men faculty members at Montana State University previously described.

A Montana Physician Serves in a Consultant Capacity in the Workshop on "Education for Parenthood" for High School Men Faculty Members Who Will Serve as Leaders for this Program in Their Respective Schools Next Year.





Psychological Testing Techniques Were Demonstrated at the Mental Retardation Workshop for Nurses.



A Case of Phenylketonuria Was Presented at the Workshop for Nurses on Mental Retardation. The Public Health Nurses Learned New Information Concerning the Importance of Early Diagnosis in These Cases in Order to Prevent Mental Retardation From This Cause.

MENTAL RETARDATION

The interest of the public in the problems presented by the mentally retarded has made mandatory an increased effort to provide public health nurses with a skill necessary to help families with this problem. With the support and counseling provided by nurses, the mentally retarded can be helped to adapt themselves to the environment and make their contributions to society. Because of her relationship to the families in the community, the public health nurse has a unique role in providing service to such families by helping them understand the potential of their mentally retarded children and by providing practical knowledge in the care and training of these children.

To alert public health nurses to the problems of the mentally retarded and to increase their knowledge in this field, a three-day seminar was provided.

This was the first organized effort of this kind although public health nurses have always worked with families in which there was mental retardation.

Representatives of all agencies and organizations providing help for the mentally retarded in Montana were involved as resource persons in this seminar.

RECORDS AND STATISTICS

The Board's activities in Records and Statistics are concerned with vital registration and the statistical work relating to public health studies. Most of the statistical information on the Board's programs reported in this publication was developed through assistance from this Division.

VITAL REGISTRATION

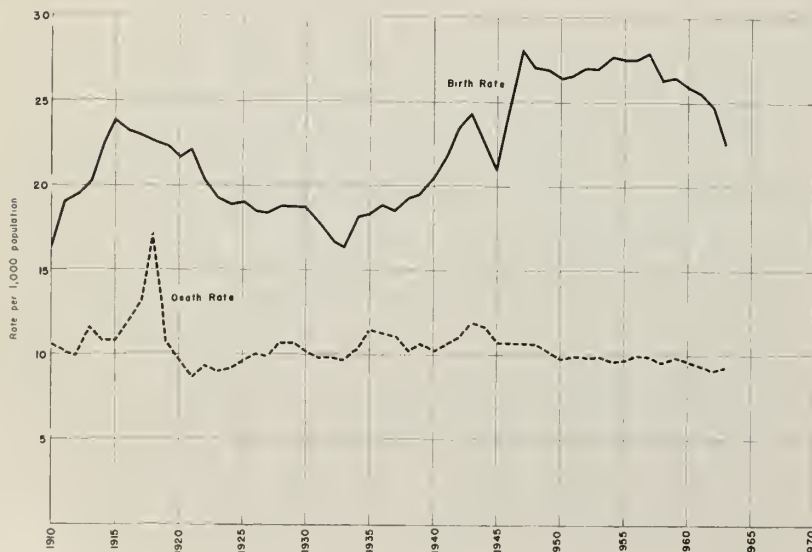
Vital statistics in Montana are presently in a state of flux. The rates for some kinds of events are now decreasing after a long period of increase, while others show an opposite trend.

BIRTH RATE

The crude birth rate in Montana reached its highest peak in 1947 with a rate of 28.0 births per thousand estimated midyear population. This rate was based on 15,086 live births. A second peak of 27.9 was reached in 1957 when 18,219 live births occurred to mothers who were Montana residents. Since that time there has been a general downward trend in the crude birth rate. In 1963, there were 15,934 live births and a crude birth rate of 22.5. This is the lowest number of births since 1951 (15,929) and the lowest crude birth rate since 1945 (21.0).

The downward trend in the birth rate is not unique to Montana and has been noted generally throughout the United States in recent years. It is due, in part, because the children born in the immediate post-war years are only now reaching the reproductive ages. In the meantime, these children are counted in the population base upon which the crude birth rate is based; thus an increasing birth rate tends to reverse itself.

LIVE BIRTH AND DEATH RATES: Montana



DEATH RATE

The most dramatic point to be noted in observing the crude death rates for Montana from 1910 through 1963 is, of course, the sharp increase in the death rate during the influenza epidemic of 1918. Since World War II, the trend in the crude death rate in Montana has been slightly downward; however, during the past few years it appears to have leveled off. Theoretically, it is impossible for the death rate to decline indefinitely. Actually, with an aging population, the crude death rate may increase even if there is no change in age-specific death rates.

But failure to experience a continuing decline in mortality is surprising in view of the intensified attack on medical problems in the post-war years. There has been a growth in the volume and scope in health services in prevention, diagnosis, medical and surgical therapy, and rehabilitation, and also in an improvement in their quality.

There has been a notable shift in the importance of certain causes of death over the years. The death rate for most infectious diseases, which were once major public health problems, has now dropped to the point where they have all been eliminated as major causes of death. Accidental injuries and chronic diseases are now much more important causes of death than are the infectious diseases.

ADOPTIONS

The number of adoptions of children born in Montana have increased rather steadily over past years. In 1944, the first complete year for which our present adoption law was in effect, this office processed 347 records. The number of adoptions increased until in 1963, 853 were processed. Perhaps the single most important cause for this increase is the growing number of out-of-wedlock births. The increase in the number of adoptions creates a heavy work load in this office since the processing of these records is time consuming.

NEED FOR MICRO-FILMING

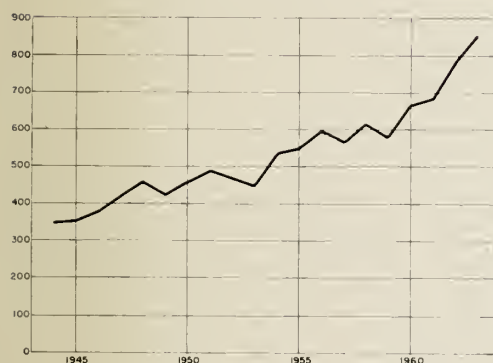
Because of a very limited amount of record storage space, it is proposed that the Division operate, in part, utilizing microfilm as a working document. It is planned that filming will begin with older records. Records will be filmed to within approximately 15 years of the current year for births and 5 years for deaths. The number of corrections made for records filed more recently than these periods makes it more efficient to work from paper records. Certificates which have been microfilmed will not be destroyed. They will be placed in storage space outside of this office vault.

A considerable improvement in the reporting of data on marital dissolutions has been made during the biennium. In 1959, for the State as a whole, some items were reported on less than 25% of the records. This was later improved to about 50% through the cooperation of some clerks of district court who recognized the importance of this type of information. For some counties, the information was not available on any records. This made any meaningful analysis of marital dissolution in Montana impossible.

For this reason the State Board of Health promoted the introduction of legislation in the 38th Legislative Assembly which required reporting of information on divorces and annulments. It required reporting of information regarded as minimal for proper divorce registration.

This legislation, which was passed, had made possible a substantial improvement. An analysis of the items on the record for the first three months of 1964 showed that for all items taken together the records were 99.3% complete. The item least satisfactorily reported was that regarding the occupation of the wife and even this was 97.2% complete. It is hoped that it will be possible to continue this high level of reporting. If this can be done, it will be possible to make a meaningful analysis of the facts surrounding marital dissolutions which occurred in Montana during 1964. This information will be useful for social workers, marriage counselors, religious officials, demographers, legislators, and other persons interested in factual data regarding divorce and annulment in Montana.

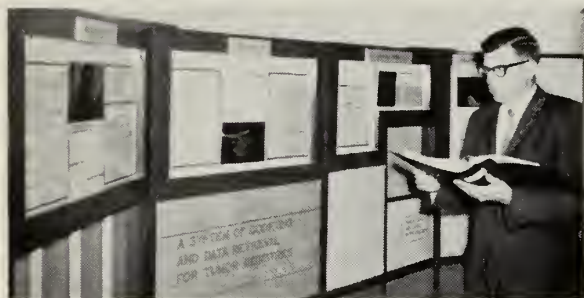
NUMBER OF ADOPTIONS FILED: Montana, 1944-1963



REPORTING ON MARITAL DISSOLUTIONS

PUBLIC HEALTH STUDIES

The Division does not limit its statistical activities to vital registration. During the past biennium a system has been set up for processing statistical data from hospital tumor registries. At the present time, data are being processed for hospitals in Butte and Missoula. The system can readily be enlarged to include reporting from hospitals in other areas. With this reporting, it will be possible to provide information to individual physicians so that they may evaluate the progress of their patients as compared with all patients treated at the hospital. It will also be possible to conduct special studies.



This Exhibit Depicts the Operation of a Typical Tumor Registry.

As in past years, the Division will work with other Divisions in the Board and with local health departments in providing consultation on problems of a statistical nature. This will enable persons in other areas of public health to conduct statistical programs and activities that are based on sound principles. This, in turn, will make it possible for them to provide meaningful information.

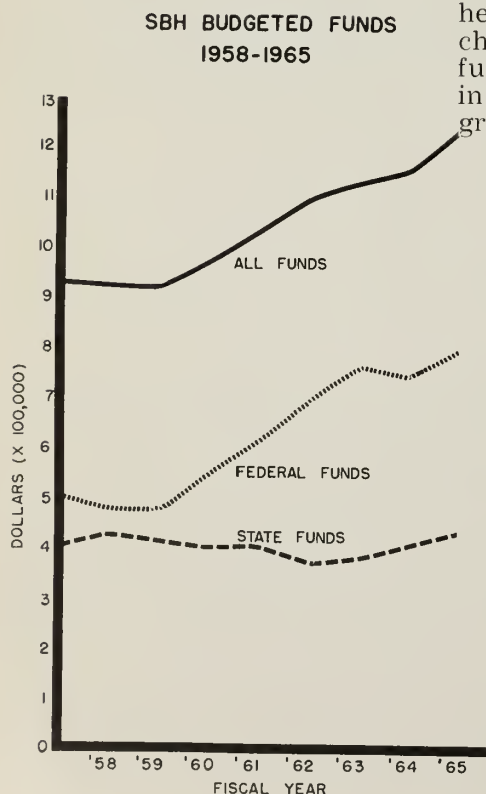
New activities contemplated in the next biennium will be an immunization survey in which this Division will play one of the major roles. Statistical assistance will also be given in the project designed to develop a comprehensive State plan in Mental Retardation.

PART III. ADMINISTRATION AND FINANCIAL TABLES

BUDGETS

During the biennium State appropriated funds were utilized primarily for basic health programs for which Federal grant funds were available only on a limited basis. After support of programs of general administration, vital records and statistics, communicable disease control, environmental sanitation, laboratory services, hospital facilities construction supervision and public health nursing supervision, very little State funds were available to match Federal grants provided for other programs. This placed limitations on health services which could be provided within the State. It was not possible to increase basic health services, some of which were below desired levels.

A large portion of Federal grant funds available for programs in heart disease control, cancer control, radiological health and crippled children's services could not be used because of lack of State matching funds. Expansion of health programs was possible only in those areas in which there were available special Federal grants for short term programs, such as demonstration projects or surveys of specific health needs.



Accounting Systems Are an Important Aspect of Fiscal Management.

MONTANA STATE BOARD OF HEALTH

Budgets and Expenditures State and Federal Funds

FISCAL YEARS 1958 to 1965

Year	Total	Federal*	State**
1965 Budgeted ----- (Preliminary)	\$1,221,024	\$ 790,004	\$ 431,020
1964 Budgeted -----	1,139,277	727,599	411,678
Expended -----	1,089,645	695,180	394,465
1963 Budgeted -----	1,123,527	747,140	376,387
Expended -----	1,023,597	660,913	362,684
1962 Budgeted -----	1,087,985	706,685	381,300
Expended -----	989,568	629,379	360,189
1961 Budgeted -----	1,029,854	610,180	419,674
Expended -----	969,122	574,970	394,152
1960 Budgeted -----	972,101	553,374	418,727
Expended -----	919,220	534,962	384,258
1959 Budgeted -----	926,366	493,316	433,050
Expended -----	897,837	479,552	418,285
1958 Budgeted -----	932,970	498,982	433,988
Expended -----	872,225	475,203	397,022

*Excludes Federal construction grants for hospital, medical and sanitary facilities.
**Contributions are included in State funds.

Despite a slight increase in State funds during the second year of the biennium, the department's budget remained approximately one-third State and two-thirds Federal funds. The increase in expenditures for the two years averaged \$77,000 more than for the years of the previous biennium. The increases were almost wholly in Federal fund expenditures which supported the increased costs of salaries and other operating costs as well as the purchase of specialized heart diagnostic equipment and some expansion of services in disease control and environmental sanitation engineering.

FEES

During the biennium State Board of Health Divisions deposited \$91,243 of receipts for licenses, certified copies and services. These were deposited into the State general fund with the exception of \$3,984 of private water testing fees which in 1963 were used to defray a portion of the cost of bacteriological testing services. In accordance with statutes revised by the 1963 Legislative Assembly all fees in 1964 were deposited into the general fund.

COLLECTIONS FROM FEES

	Water Fees Private	Water Fees Public	Vital Statistics	Septic Tank Licenses	Hospital Licenses	Food and Drug Licenses	Total
1962-63 -----	\$3,984	\$10,331	\$ 9,228	\$305	\$ 630	\$16,910	\$41,388
1963-64 -----	3,989	19,342	9,062	300	400	16,762	49,855
Totals -----	\$7,973	\$29,673	\$18,290	\$605	\$1,030	\$33,672	\$91,243

PROGRAMS

Effective June 1963 the Public Health Service withdrew support of the Physician assigned to the Board of Health for work on the cancer control program. The special project was in force for two years and allowed a very effective emphasis on the cancer program in Montana.

In 1963 Federal grant funds became available on a matching basis for work in radiological health. Limited matching program payable from State funds has been possible in this health area. As a result only a portion of the available funds could be utilized and the program could not be made as effective as it should be, considering present and possible future needs in this field.

Because of the need for emergency health planning the Public Health Service was requested to assign a representative to Montana for this type of work. The State supports the costs of travel and incidental costs of the representative whose duties include coordination of emergency health services and training.

During 1964, a heart sounds screening program was conducted of the school populations of seven counties in the northeastern section of the State. This demonstration project was for the purpose of evaluating the adaptability of the heart sounds screening technique to a local area as a case finding procedure and to gather data on the prevalence of heart disease among school children in a rural community. The program was made possible by a special short-term Federal grant.

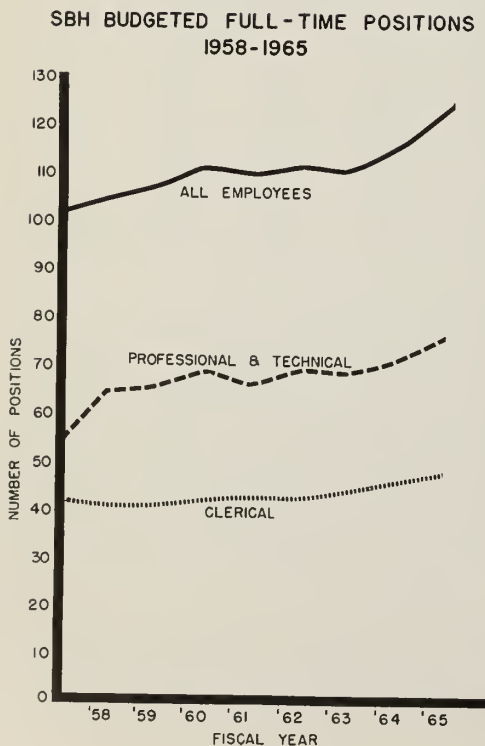
In June 1964 there was initiated the special community immunization survey, the purpose of which is to determine the level of immunizations of children five years of age or under. The program is supported by a Federal grant and will terminate in November 1966.

Late in Fiscal 1964, the State Board of Health was certified by the Governor as the single State agency responsible for carrying out the purpose of the Mental Retardation Planning Grant to Montana. The grant is to support a survey of the status of mental retardation within the State and an assessment of facilities and means for the provision of services to the mentally retarded. The survey will involve representatives of all agencies interested in or providing services. Special survey grant funds will be available from the Public Health Service for expenditure during an 18-month period beginning July 1, 1964.

PERSONNEL

The work of the Department has been hampered because of staff shortages which included public health physicians, microbiologists, speech and hearing therapists and public health nurses. Many programs have been operating at less than desired levels because of the vacancies. The prime factors causing staff shortages are inadequate salary schedules and competition for services of trained health personnel who are in short supply.

There has been no increase in staff personnel in the past five years in continuing basic health programs. A review of budgeted positions in Fiscal 1964 as compared to Fiscal 1959 shows that with the exception of Federally supported special short-term projects the budgeted positions remain about the same.



Interviewing Applicants is One of the Basic Functions of Personnel Management.

Personnel Turnover

	% 1958	% 1959	% 1960	% 1961	% 1962	% 1963	% 1964
Professional							
& Technical	22	17	12	25	19	18	16
Clerical	45	60	23	37	21	60	36

OFFICE SPACE

The third floor of the Board of Health Building was remodeled for office space as part of the plan to provide needed space during the period of extensive remodeling of the State Capitol Building. The Child Health Services Division was moved into the new space, and office space in the Capitol Annex was released to another State agency.

One of the greatest current needs of the Department is for more adequate office space. Several thousand square feet of additional space would be necessary to furnish a good standard requirement of space for personnel and for record storage.

SUMMARY OF EXPENDITURES AND ENCUMBRANCES BY OBJECT

Fiscal Years 1963 and 1964

Object	State and Federal Funds Exclusive of Construction Grants		
	July 1, 1962 June 30, 1963	July 1, 1963 June 30, 1964	Total
Salaries	\$ 644,825.79	\$ 687,758.67	\$1,332,584.46
Employee Benefits	43,959.09	48,201.01	92,160.10
Travel	54,644.27	72,731.77	127,376.04
Office Expense	73,532.71	84,495.18	158,027.89
Scientific Supplies	22,312.33	18,447.18	40,759.51
Merit System	8,464.08	9,266.79	17,730.87
Drs. Fees, Clinics & X-Rays	59,477.30	68,578.84	128,056.14
Hospitalization	46,005.21	59,011.64	105,016.85
Appliances	7,211.50	9,625.38	16,836.88
Miscellaneous	17,503.21	9,393.00	26,896.21
Aid to Local Areas	45,661.52	22,135.33	67,796.85
TOTALS	\$1,023,597.01*	\$1,089,644.79*	\$2,113,241.80
*Encumbrances 1963	\$69,473.59		
1964	\$59,735.57		

SUMMARY OF EXPENDITURES AND ENCUMBRANCES, By Sources

	July 1, 1962 to June 30, 1963			July 1, 1963 to June 30, 1964		
	State	Federal	Total	State	Federal	Total
ADMINISTRATION	\$(30,114.31)	\$(49,361.13)	\$ (79,475.44)	\$(38,289.25)	\$(53,686.66)	\$ (91,975.91)
General	30,114.31	40,897.05	71,011.36	36,209.42	42,570.91	78,780.33
Merit System	—	8,464.08	8,464.08	—	9,266.79	9,266.79
Emergency Health Planning	—	—	—	2,079.83	1,848.96	3,928.79
CHILD HEALTH SERVICES	(75,504.85)	(194,458.19)	(269,963.04)	(78,277.54)	(241,059.95)	(319,337.49)
Maternal & Child Health	9,798.96	41,796.36	51,595.32	8,201.58	53,264.96	61,466.54
Crippled Children	31,622.41	15,361.67	46,984.08	17,237.98	39,363.66	56,601.64
Surgical, Drs. Fees & Clinics	7,406.02	26,068.33	33,474.35	11,441.05	28,188.65	39,629.70
Hospitalization	6,041.36	28,748.69	34,790.05	14,699.14	35,722.47	50,421.61
Appliances	1,188.21	6,023.29	7,211.50	1,924.65	7,700.73	9,625.38
Cerebral Palsy Center	19,447.89	26,459.85	45,907.74	24,773.14	26,769.86	51,543.00
Cleft Palate Program	—	50,000.00	50,000.00	—	50,049.62	50,049.62
DENTAL HEALTH	(4,636.56)	(25,192.48)	(29,829.04)	(2,609.22)	(20,468.35)	(23,077.57)
DISEASE CONTROL	(42,411.50)	(164,061.72)	(206,473.22)	(50,798.69)	(175,608.03)	(226,406.72)
General	39,048.70	51,455.62	90,504.32	45,395.13	54,928.88	100,324.01
Cancer Special	—	20,561.22	20,561.22	—	—	—
Community Vaccination Program	—	—	—	—	235.83	235.83
Drugs & Biologics	—	—643.88 ¹	—643.88	—	21.44	21.44
Radiological Health	—	1,103.33	1,103.33	—	11,064.93	11,064.93
Cardiac Diagnostic Center	3,362.80	34,762.36	38,125.16	5,017.49	32,347.58	37,365.07
Venereal Disease	—	13,349.05	13,349.05	—	14,405.57	14,405.57
Heart Sounds Screening	—	—	—	386.07	6,749.30	7,135.37
Chronic Illness	—	43,474.02	43,474.02	—	55,854.50	55,854.50
ENVIRONMENTAL SANITATION	(62,215.49)	(54,226.79)	(116,442.28)	(76,712.73)	(54,436.60)	(131,149.33)
General	33,482.87	29,826.79	63,309.66	43,372.15	28,880.22	72,252.37
Water Pollution	28,595.16	24,400.00	52,995.16	33,179.93	25,556.38	58,736.31
Sanitarians Reg. Council	137.46	—	137.46	160.65	—	160.65
HEALTH EDUCATION	(7,088.85)	(29,076.93)	(36,165.78)	(7,811.19)	(22,840.68)	(30,651.87)
HOSPITAL FACILITIES	(34,181.09)	(—)	(34,181.09)	(33,138.97)	(—)	(33,138.97)
LABORATORIES	(56,900.10)	(42,056.93)	(98,957.03)	(55,952.68)	(36,267.49)	(92,220.17)
Microbiology	46,562.64	30,179.53	76,742.17	54,626.36	31,820.04	86,446.40
Virology	10,337.46	11,877.40	22,214.86	1,326.32	4,447.45	5,773.77
LOCAL HEALTH SERVICES	(—)	(86,586.35)	(86,586.35)	(—)	(76,375.48)	(76,375.48)
Mental Health Spec. Project	—	40,924.83	40,924.83	—	54,240.15	54,240.15
Aid to Local Areas	—	45,661.52	45,661.52	—	22,135.33	22,135.33
PUBLIC HEALTH NURSING	(4,629.29)	(15,892.91)	(20,522.20)	(4,756.95)	(14,436.33)	(19,193.28)
RECORDS & STATISTICS	(45,001.54)	(—)	(45,001.54)	(46,118.00)	(—)	(46,118.00)
TOTALS	\$362,683.58	\$660,913.43	\$1,023,597.01	\$394,465.22	\$695,179.57	\$1,089,644.79

¹ Refunds exceeded expenditures.

TOTAL EXPENDITURES AND ENCUMBRANCES

FISCAL YEARS 1959-1964

	1959	1960	1961	1962	1963	1964
ADMINISTRATION	\$(66,739.36)	\$(60,259.37)	\$(80,944.08)	\$(82,969.58)	\$ (79,475.44)	\$ (91,975.91)
General	53,361.16	50,610.54	70,009.83	74,842.15	71,011.36	78,780.33
Merit System	8,115.09	8,466.52	8,709.95	8,127.43	8,464.08	9,266.79
Training	5,263.11	1,182.31	2,224.30	—	—	—
Emergency Health Planning	—	—	—	—	—	3,928.79
CHILD HEALTH SERVICES	(310,804.34)	(304,936.35)	(286,018.15)	(267,571.01)	(269,963.04)	(319,337.49)
Maternal & Child Health	56,797.74	63,311.96	55,674.25	33,482.59	51,595.32	61,466.54
Crippled Children	39,256.52	38,905.04	30,945.27	39,692.39	46,984.08	56,601.64
Surgical & Drs. Fees	46,112.50	41,279.64	47,459.18	39,606.89	33,474.35	39,629.70
Hospitalization	67,533.19	59,478.83	56,459.94	56,926.67	34,790.05	50,421.61
Appliances	5,669.78	8,178.10	8,848.07	8,750.36	7,211.50	9,625.38
C. P. Center	45,432.39	43,433.54	41,631.44	43,112.11	45,907.74	51,543.00
Cleft Palate Program	50,002.22	50,349.24	45,000.00	46,000.00	50,000.00	50,049.62
DENTAL HEALTH	(18,536.22)	(25,385.02)	(27,288.97)	(18,706.75)	(29,829.04)	(23,077.57)
DISEASE CONTROL	(93,866.48)	(108,790.46)	(131,892.95)	(156,493.29)	(206,473.22)	(226,406.72)
General	71,203.06	71,851.98	96,993.95	95,132.05	90,504.32	100,176.65
Cancer Special	—	—	—	11,292.80	20,561.22	—
Hearing Conservation Meeting	—	—	—	—	—	147.36
Community Vaccination Program	—	—	—	—	—	235.83
Drugs & Biologicals	418.79	1,739.95	1,520.78	—320.22 ¹	—643.88 ¹	21.44
Radiological Health	—	—	—	—	1,103.33	11,064.93
Cardiac Diagnostic Center	17,977.49	24,164.12	21,677.27	25,572.54	38,125.16	37,365.07
Venereal Disease	4,267.14	11,034.41	7,678.27	6,070.32	13,349.05	14,405.57
Heart Sounds Screening	—	—	—	—	—	7,135.37
Chronic Illness	—	—	—	9,832.32	43,474.02	55,854.50
Improvement Patient Care— Nursing Homes	—	—	4,022.68	8,913.48	—	—
ENVIRONMENTAL SANITATION	(99,965.35)	(107,261.20)	(106,313.95)	(117,762.75)	(116,442.28)	(131,149.33)
General	65,114.26	67,073.32	65,387.17	67,394.24	63,309.66	72,252.37
Water Pollution	34,851.09	40,071.64	40,771.80	50,270.77	52,995.16	58,736.31
Sanitarians Reg. Council	—	116.24	154.98	97.74	137.46	160.65
HEALTH EDUCATION	(46,976.43)	(43,584.70)	(43,232.01)	(41,313.79)	(36,165.78)	(30,651.87)
General	41,409.07	37,545.35	36,173.83	38,173.04	36,165.78	30,651.87
Narcotic Education	5,567.36	6,039.35	7,058.18	3,140.75	—	—
HOSPITAL FACILITIES	(30,891.29)	(31,546.31)	(33,528.15)	(34,014.45)	(34,181.09)	(33,138.97)
LABORATORIES	(99,904.10)	(90,533.46)	(91,306.12)	(92,581.51)	(98,957.03)	(92,220.17)
Microbiology	69,368.50	66,632.76	67,601.65	73,814.64	76,742.17	86,446.40
Virology	30,535.60	23,900.70	23,704.47	18,766.87	22,214.86	5,773.77
LOCAL HEALTH SERVICES	(68,118.39)	(84,321.57)	(107,016.32)	(116,585.52)	(86,586.35)	(76,375.48)
Mental Health	—	13,080.04	45,876.76	46,645.27	40,924.83	54,240.15
Aid to Local Areas	68,118.39	71,241.53	61,139.56	69,940.25	45,661.52	22,135.33
PUBLIC HEALTH NURSING	(23,340.67)	(22,168.02)	(19,510.33)	(18,738.47)	(20,522.20)	(19,193.28)
RECORDS & STATISTICS	(38,693.89)	(40,433.85)	(42,070.91)	(42,830.72)	(45,001.54)	(46,118.00)
TOTALS	\$897,836.52	\$919,220.31	\$969,121.94	\$989,567.84	\$1,023,597.01	\$1,089,644.79
Federal	479,552.16	534,961.66	574,970.31	629,379.21	660,913.43	695,179.57
State	418,284.36	384,258.65	394,151.63	360,188.63	362,108.40	393,718.62
Other	—	—	—	—	575.18	746.60

¹ Refunds exceeded expenditures.

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Inquiries relating to additional details not
included in this Report should be directed
to

Montana State Board of Health
Helena, Montana

